

aagaaagagg agtagtgaga aaattagagg aagaaggaga gggagaaggg gatgagaaga 300  
aggtggagtg gttataaagg gagtaagaag gagagaagga aagagagaag gggaaagaag 360  
gatggatgga ggaaagtgtg gaaataagtg aacagagatt ttgtgaaaag acaggcaaaa 420  
gcagagctag gaggatcgaa tatgaaagta ctgaccaccc gagataagtc gccgacaagc 480  
tcttattcac atccccaaca aagttcggct ttctcttctc aaagaacgcc gtaacacctt 540  
ctttctggtc cctacataaa gaaatgaatt gtcagccata ttcaaacata caaaaagca 600  
gttaatgacg aaaggcaaac atacggcgac gtaaaccgat gatagataac ctcggaactcc 660  
aacaatgag cctcctccgc actctcaggt cccctccaca taagctcccg atttagcgct 720  
gctgcctgag gactcacatt ttctgcgac tcagtagcga gggccaaagc gcgcggaagg 780  
acctgactct gctccggcat cgtctctgca aagaggcccc cgaaatgagg agatgtggac 840  
gggtaaacgg cgcccgttga gacgaggtag ttggcacgag agtggccgat tagccggggg 900  
agaaaatacg aggagcaaga ctccatagta atgccacggc gagcaaagac gaagccgtac 960  
ttgcttgatt cgtgtgcgat cctgttcaac gttaggttcc ttttagccgt agggagttgc 1020  
gactgtaggg taaagtaagt gacaggggtg gtacctgatt gcagctggga gaaccatggt 1080  
cataccaact ccaacagctg agccttgcac agcagcgata gtgggcttac gacatctgtg 1140  
gattgagatt gctacgcgac caccactgta taattaccaa gtcagtccga ggcagttacc 1200  
ttactacaat cctttcatgg gcgaggacca acctgtccct atgtccctc gacctctcct 1260  
ccaatgcctt aaaccaatc tccagatccg cgccagcgca gaacgtattg ccagcgcccc 1320  
ttaaaacgac aaccctcacg cgctcgtcgc ggtcgaacag gccgaagacc ctctctaggt 1380  
cctcggccat ggccatcgta aaggcattgc gcttttcggg tctgttgagc gtaacgataa 1440  
cgacaggtgt tgcattcgct gagcccacag gataatgtga gagtttgatg tgttggttg 1500  
gaaaggactc ataggataag ggaatctcga taggaggtgg agtgaaatac attgttttg 1560  
cggtagcggg ggtagatgtt cgacaagttg ttggctcggg cgtgacggca gaggttat 1620  
aaagggcgga agactggtga gacaaccct ctgtctcggc ttcaaggctg acggttgctg 1680  
gctgccccgt gcaactggtg gtatgctcat ctagattata atagctgatt acaatagacc 1740  
ggttcaggga cctcggtata cccggctagg cgttgcgag ctctaaccgc gcaaatgcgg 1800  
agagctcatg tacagtacag tactacttct gatgcatggc accacaccgc ttaaataagt 1860

aattgagata gtattcgagc tgagttcgat agattgaagg aacgaatata gtaggtagca 1920  
agcttcagta atcacgcaca gatgaaagag tagtgttgta ctacgttggc agagacctgg 1980  
gttagcctta ggcctcgctt agtttccggt tagaaagctc agtaatcgtc tccgcgactt 2040  
atgacttccct tatttgactc tcgcaacaag acgggtctagt atgattagtt catgtttgaa 2100  
ttacggtcga gggccctaag aacatacatg ctggaattgg gcagagtacg accccttgat 2160  
gtcaacaaga ggtgcataaa cgtcgacaac tccgtgctgc acgagagtat tcatctgcag 2220  
tttctttagt gactgtagtc attgcggtga aggccgacgt acacccgcca gataccgctg 2280  
caaccccaga cgggccaggt agcggcgaca gaaaacgatg gttccaaagt tctcgttgat 2340  
cgtcttgtat aaggaccttg ctgaagccag aggcaaagac acctggcgcg gtgcgtcata 2400  
cgactttccg tagccgtaaa caccgacctt gaaacaaatc agtggcagtt tataaccatc 2460  
gccttctctg tacgcacatc atcatatata tagccccggc cagtgtccc aaaagtttct 2520  
atggcaaaaa tctctccttc ctccattttt gtctggtcgg agttcttgac aaaaggaaca 2580  
gatttcccg ccatggatctg gtaatgcttg atattatggc cagtaatgtt ccgtagtgcc 2640  
tttacgggga atgtcttccc tccaatttcg acctcgtagc ttcccatagc ctcttgatg 2700  
gcagcgctaa catcactaat acggacatcg attccccggg tctacatcat tagtgatttt 2760  
atgtgtctat ttactaagaa gcataccttt aggccggcat tagtggcatc ttgactgcg 2820  
gccagaagat tgtcgtagac tggatcaaaa gtcacgtaa aggcactgtc cacaatccat 2880  
ccgttgatgt gaacgccgaa atcgaccttc atcacatcac ttgactggag aatgatatcc 2940  
ttttgtccag gattaggcgt gtagtgcgct acaacattat tcagagacag tcctgtcggg 3000  
aaacccagcc cagccttaag gctatcgcca ggttcaagac cagcgtggct ctaggagtgc 3060  
acgcacgcca tcgtcgatat cctcggcgat ttccattaga ccctggcggg gtttgacacg 3120  
ctctgcgtg cactttcgga cctggcggtg gacctcgca gcctttcgat agtcgtttaa 3180  
aaacgaatca tcctcgagat gactgcgaga cttgtagcgt acttcctcgg ccgtgggtgcg 3240  
tgaggtgttt tccacattgg gctggtactc ctggacctcg ccgatagggt acttgccctg 3300  
caggaagagc tgagacagcg ggactctagg aggagaagat tgctttgcag ccttcttctt 3360  
gcccttcttc tttgactttc tcttcttttc tgattacat tcgcattggc attgattagc 3420  
gcggtcgagt gcgcttcgcc gtcacatct tcgccgctgt ctccgatagt accgtctccg 3480

tccggttgca gatgatgcc ccgcggcatt ccaccaaggg ggcatcgcac aggaccgggt 3540  
 gtgttttctg gccgtgttta ggtttgagag cagcagtaga tttggattga attaccttga 3600  
 cccttatggc catctctttc aggagtcttc gaaccattg tgccatgcgt atattacact 3660  
 gctgtataat attgaaacct gcagatcgaa cgatagaaaa gaacgaagtt cgctaggcac 3720  
 cagcgtttcg tttcgtttcg tttcgtttcg tttcgtttcg tttcgtttcg tttcgtttta 3780  
 ttatttaacg tcaactggcg gatcacgtgg ccacgtgat ctgcggcctc ccagggggca 3840  
 tctggacgtg ctacctaaac agaactgcct aggaactagc tagatacagg tttgaagcag 3900  
 caactatgga caatatatgt tggaaatgag cggaagaagc atccggcgct accctggcca 3960  
 ggtcttcgag ggcagatgcc cgttttgact acctatagat tggggggagg ggccgtaccc 4020  
 tttgtccagg tagatgtgtg gactgtcgca ctttcaagcg ctccggcggg ccagtttcgg 4080  
 gcatatgtcc ttgaaaaagg atgattcttg cagcatgcgg ctgaattcct cagccccggc 4140  
 agctgtactt aagagccagt ctattgtttt tgacgggcca tcctttatac atctccatct 4200  
 atccttccag cgttttctgg tatatgggca aaagaagaag tgtactgggg tctttgcctt 4260  
 gccgcagggt cagctctcca ggtagtctgt gtgggtcaaaa cgctggtggt atgccgtaaa 4320  
 gtctccgtgg cctgtacgag cggcgacgag tcggccaagt acccaccggg gcagcttggtg 4380  
 ctgcggggag cggctttctt ttgtatgggg tctgatattc agggctttgt aggtttcagg 4440  
 cgccttatta gcatatgctg tatatgtctc tgtacggagc cactgttttg cctcccgttg 4500  
 taggtatgct ggggaggggg ggatgtcggg gctgtatata gaagacccta gcttagcgag 4560  
 cttgtctgcc agctcattcc cagcaattcc agagtggcct ggaatccagc ggacctgaag 4620  
 gggcttccgt tgcattggtta ggattgaagg gctttccatc cactgggcgg ctagttggct 4680  
 aaaggtctct gacagaccat gtctgtgagg ggttggccta tagcttgcta gcagggagggc 4740  
 tgcagctagg ttatctagga ggataactag ctgggtggag tagccaacgc atggttggtc 4800  
 cagggtcgcg cgtaggcctt ccacagtacc catgatttct gcatcataga cttctgtcct 4860  
 ggggcctgcg ggacctgtc ccttggacac aaggataggg ccaaagtaga ttgcatagcc 4920  
 atacctgcc ccctggctgg tctgtgagcc atctgagtac actaaaatct gtaaaggggc 4980  
 agggctgtag cttttgttgt ctgttgggag catatataat ggaggggagag gcagctctat 5040  
 tatagcgcgc tctggcaggg ggctgaggag gagctgtagg atccttttaa gcctggtttt 5100

gggcctgccc gcggtagtct ctgtggctat ttaggcaatt ggggtgttag tatcagggct 5160  
 catgtatctc actgctgccc tccggaggat gctgttgagt agagcttctg ggtctggtag 5220  
 gtctgcttcg cggaggagtg ctgcagtagg ggtggtcttg taggctggga taatagccag 5280  
 ggctgctgtg cggaagagag aaagcagga gttaactacc cctttttgtt gtttgccctgt 5340  
 atagaagact tctgccctgt acagagctgt tagaagaaca cactatataa ctgctgcctg 5400  
 catggaggct actaggcagc catgctgggt attgctaagt ctctttaggt gctgggagag 5460  
 tcgtttcccg cggctaaaga ccaaattaat gtgggcttta aaagtaagct ttgtatctag 5520  
 aagaactcct aactaccatg atatataggg atggtgtaat ctcccctata ccaggtagag 5580  
 taactgtggg agatgctgct gctactttct aag 5613

<210> 4933  
 <211> 2600  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4933  
 tgggactgga gattagattc tcttggttcc tgaggggaaa actgtggcta ggagttaatg 60  
 gctggtttcc cggtcgctta cagaatttcg ggagtgtgta cctatcgtga tgtgtagtct 120  
 tgttattctt gccacgaata cgaacgaggt gttgctggaa tggggtgtga actgggatat 180  
 ttcgggctga acagtggact atactgatac caattgattt gtcttgacag cgtctcatgt 240  
 atttacgagg aaaaggctat gatgcaattg taaaaattga tccaatgtgc tcttgtatgt 300  
 acccagcagt atccttgact ccatgcccga aaaccattat ggacagtaga gaaacctaac 360  
 gtatcaacgc cgaaaagttg ggtattataa acatagccat tacctcatac cagtattaaa 420  
 catgtcgagg cgaagcagaa catgatgcag accaagcagg aaaggagagac cagaaaggcc 480  
 tacaacacct ttgtcttcat ccactcactc gtaccaaacac ctagattgag ccattacga 540  
 gccaccatt tctcaccg ctcttcagca ccagacactg ggtccgcgtc ctcaagagct 600  
 tcttcgatat cgcaggtctt gaattccaca cggaggccgc tgcgacgcca ccattctaga 660  
 acattatcgt ggccattttt ggtcgggtcca acgagcacct ggcagtcgaa aatcatcttg 720  
 gcccttttca gcttatacca gaaatcaagg acgtgcacgt ggccgtgggt gctggcgatt 780  
 cgtgcaacag attctgcatg tgtatacggg atacctgatg cgtcccacca ggcgagcgaa 840

gctgttcggc cagactgagc cgcgaggagg acggatttac cgactttcag aggtattgga 900  
cgagagctgg gagcggttgc tgaagccctc ttccaccatt caagaacatt gacgcggcct 960  
tcagcactgg ctgactctag cgctctctcg gtgtagcgga gttccaagcc tgatgttcgc 1020  
caccactcta ggacatccac gaagccggca cgagaggctc catccattgc gtctgcaatg 1080  
tattctttgt tcgggagtgc tggggcatct cgccaccatg tcaatatctt gggattgccg 1140  
tatattgctg atgcacgata ggggatgttg gtgaggcggg aggtagtcca gaggagatca 1200  
aggtgattct cggtgagatg agaaaggatg tcagttcgcg agaatttgaa gatgaggtgg 1260  
catgctaaat ctgatagtgg tttccaacgc ggcaggctat caatccgctt cttgattgca 1320  
gcaaatgaac cacgaagaat agtgtactcc agagatgcag gtgccgacat cttcaggaga 1380  
tgactctgcc attccttagg aactgcaagt ttcgttggga taccgaccgc tttggcgaac 1440  
tcccaatcgg ttaagatggg tcttcgaata tattcaacca taattttagt ggcaatgagg 1500  
atgggccttt cttttcaacc atactaggtc tggccaaact tcagactgga ccggtgcgac 1560  
ttttggcttg tttaggcttc tttaaactgg cccaacttg cgatgccgta aactcggtag 1620  
gctggggagt cgattgccgt ttcctttgct aacgagaaca taagagtttt ttcaatcatt 1680  
taatgtagct ctgtcaaacc cgcccaaggc agctgaacca gctccccagg tgcgttatat 1740  
ttccatagaa ctggcgatac aatgtcaatc caaggccaaa accgacgaac ttccagcagt 1800  
tgctctcag ttaacggatg ctccactct gagacggtca ttccagggat gagaagaacg 1860  
ggctttgcag acttccagcc ccgcaacaac gccagtgtca gagtgttggg gaggcctgac 1920  
agcatggagc ctaatgttcc cgcctcgact ggtgcaatga ggaacaaatc ttgccactcg 1980  
cagagtttcc caagctttag ccttgagcc catcttgggc cccaatttc cttttcgaaa 2040  
gtcctactat ccaccgttc catatatggg ggaaccttgg tcgtgccgta aagaaggccg 2100  
aatgtttcgt tccggaggaa ctaaacctcg atgcacgggt ggctgttact tggcccgtgg 2160  
agcctttatg gccacctcc tggctcgtga attaataacc ccttggcggg gaggcccagc 2220  
cttaatccct ataggttggg ccctaacacg cctgaaccg ttaatttttc ccgcccgttt 2280  
gggggttttt atggtaatca gccagaccc ggaacctttt tggccccagg tctaattccg 2340  
gtggggatgg gatggcaaac ccaaggctta acggtcttac tttttgggag attttcagga 2400  
aaactcccc gcctttaata gatcggcaaa aattatatta aatgggcctg gctcgcgcca 2460

acctccttta aaagaagtgt taaatcttcg ggcgtcttgt tttttttatt ctaaaaatga 2520  
gaaagggggg acggcctttc tctgtgaatt ataagagttc ttatatgggt ctgtattttt 2580  
ttgtaatata catgtaggtt 2600

<210> 4934  
<211> 1587  
<212> DNA  
<213> Aspergillus nidulans

<400> 4934

atccttatag tagatagctg ttttttctgt taaaagccta cccaatgcta ctgagggacc 60  
gaaacccaac ccttgctgaa taatcttaga gtctagatag acctgtctga accccgtttt 120  
ccagtactcc agtctttgtg cggcaccagc tgttattcca acaatagggg aaatacctgt 180  
acatcgacat tttccataac cgagatacct cacggaaagt cctttaggcc catcgacctt 240  
tagccgtaac aggagattgc ccacaaattt aatactctgt atcgactcaa gtacattatc 300  
cccgatagta ccttccacat ttcgcatatc catactctcc ccgagaagat aaatatgcac 360  
tttctgcccc agcgccacag caactaactc tccgcaaggg gagagggccg cctgtattcg 420  
cgcaaacggc cgcgtgcaga ataagcctcc atgattgtag ccgataagtt gtcgtactgc 480  
atcagatggg ggaaatatcg tgggtgagag ttgcacctca tggctagcag acgtcgacgt 540  
cttgagtatg aatgtcatcc cacgcaactg cgcgtattgg caccatgcc gagattgaac 600  
cgcaatagcc gacattggtc ttactgtttt ctctccgta ttgctgaggg aaacgttgct 660  
ccgtatcccc atgaggttct gccggcagac acggtggaat agtattctca gttctcgtgg 720  
tgtcgctgt tcaatgtctg cctcggcgag tgtgggaaca gtgggaacag tgttgagctg 780  
gtgccgaagt acataagagc ttaacgccgc gttccgcaa tctttgcacg tccaactcgc 840  
cgaaaagaac gactggaagt cagcgaatag gagtatctcc tgcaaaagtt cagtcggtaa 900  
tggaatagcca ttgctcctta tatccacgtt tgccccatt ctgggcacac ggttggatcc 960  
tggcatgggt tttcctgaat tttctattct tgcttttctg tacctggctg cttatgagat 1020  
gccgggccgt agaaagagaa cgtttagccg tgctgcaccg gtactataaa aacaaaaatt 1080  
gaggcgccag tgatcctctt ctgacgggaa gccgattggc ccaatttcgg ctaactcggc 1140  
atgccgcgtc aagaatggca tgccataggg caatgcagcc tctttttgtt tattatggga 1200

ccaacccgat aaccattgat gggattcaaa gttataacac cagtttcgta tgctgaagaa 1260  
 tgcattccggc cctgaagggtc ggatgtacga cgtatatcca tctttaacta gtcattcattg 1320  
 gataggcaga ttactcagcc tgaatgacat caacatgtta cccatgatac aatagggtcac 1380  
 acaaacaagc gctaagatgc acttggtatg acaagcccag tattccgttt caaaagacct 1440  
 agatgatgaa ccacaacatg aggtgttgcc tcttgatcca gtccaactgc atacgctgat 1500  
 gtatactcaa tcaagcttga tgtaaatgct gcgactgcat ttcgctggat atgaagaaca 1560  
 aagagagctt tgatgggtcc aatatag 1587

<210> 4935  
 <211> 4987  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 4935

cgtatctcgt cataaagtcg aagacgctct ggaatctctt ccaccggggt ccctagagga 60  
 agcacaactg ccagagaggc agcgtcttca atagccacgc cagctccctg gccctgatgt 120  
 ggcaggaaag ggtggggtgc atcgccctagt agagctaacc gtgcctcgta ccaccgcgga 180  
 atctcctcca tgtctagcag ttcccaaacc cggacagtct tggggtcagc tttagccagc 240  
 agcttaagca ctgtcaagtc gaagctggag aagatctgga gcattcgctg caaatttcct 300  
 gagtgacccc agccctcgtc tgcccttcca gcggagatcg actccactga gggatggatg 360  
 agcacgaaat tcaggacatt atgtgtcgcg atgtatatac tgcgaatgcg acggtccggt 420  
 ccataccaga tacataattc accgggcccgt tcgacca. . . cc 480  
 aaggcagcct gcttcggtac gagaaaccga aaggcacttc gaccacaaca ggcagccttg 540  
 acatttcctc caggaacagc acgacgcgta actgagtgga cgccgtctgc gcccaaccaga 600  
 atgtcgccgt ggaactggct gccatcctct agagtaaggg tggctgtcgc ggggtcgacc 660  
 tgcactacgc ggcttcgggt tcgaaagggg atggcttcgt acacgccatc tgggctcatg 720  
 gcaatttgct tgagctgatt atgcagatcg acacggtgag ctagcagcca ttgctagatt 780  
 tgtggtgagt acaaagtaat tgctctcaac tcggcgcttg cttactcaca tgctgccatc 840  
 tcttgttagg ctcgccagg tcgattgctc gctcgacttt cccgagtgag gtatactcca 900  
 ctagctgaaa ggaatcagct ctcttagtat caccatcaag gcctgggcatc attggggcca 960

tggacaacac tcttaccctc tccatcaaatt tcgccccgaa ttgctgctgc tcaatgcccc 1020  
 accgcttcag aatcccgttt gcattaggag cgagatggag tgccgcgcca gtttcgacag 1080  
 ccagtcgaga ctgctcgaag atctgtgctt gtcagagggg ttcccgtgga atgtacagtg 1140  
 actatcgaaa caacagacct ggatatgatg gccctgcttc cggaggggca ttgcggccgt 1200  
 taagcccccg atgccaccac caactaccag tatctcagg gggggaacag ttgctgtctc 1260  
 ccgctgatg gatgtttcat tagggactgc cattgcgaag attcattgac tgtcacgcgc 1320  
 ggacgtggga gatacgactg ctgcacgggg attagggaga agcggggatt attacgtctg 1380  
 aaaacaggaa cactttaaaa tgtaaccctt ttgctattat gaggcagtca accttgggtg 1440  
 gataagccgt tagccttcgg atgcccttgc tgtcgggtta gggcctgttc gggaccacct 1500  
 cccctcacg cccctcttac ccgatacccc caccgggtgt aggagactac aactcgcccc 1560  
 aaccaggact atgagtcatg tatggctcaa atgagcgctt ttctgcttct atgtctgaga 1620  
 tactgtgctt taattatgta cagttgcggg ctctggagcc gatatcagga catccagtca 1680  
 taccagggac cacggttact agggctcaga tgcggatagt aagccgcatg tatatacacc 1740  
 gagtaatctg ttctctttca agatctgagt aattcctgat gccctgacac ccaagattcc 1800  
 aaagcgcgta ttggggctct ttgatttgtt gtatgaatca ttatccactt aaacatggta 1860  
 aggatattgg actgacagtg gtgtttcggg tatattccgt gacatcagct acttttagtg 1920  
 tctgttcaac tggctgtcat taccacgtga aggatgcgag tcaacgctgc ctcatggggg 1980  
 tgcaactgag agcaagtcgc tcggtagacg atgaactgag gctaatacat tgaccaagac 2040  
 tggcttttca gaacgtgggc ttacgatac gggctttgct cttttctttt ggttctactt 2100  
 gtgcactttc ctgtacttgg ataagatgct gcggacaagt cgaggatttg gctgtttcaa 2160  
 ggtctataac agcgtgaagc tagtgagtca cagatgcgga attttcgctg cacactgttt 2220  
 cctgtgtcaa aagactgtca gataggtcat acgagtttat acggctacaa attagagtag 2280  
 acgatctcag ttcaattcgg aacctctaca ttcagatacc agcaccactt gttacttgct 2340  
 gacatcccgt agcctccgta gaagatggat caggttcgcc accaaccggg gcgtctgcgt 2400  
 aaagactttg tggtaatgat gggcctgata aattcaatca tcatttcaat actgcagtcg 2460  
 ggtcctcaat gccaacgggc tcttttgctt ccccggggct ctggaggacc ggtactaggg 2520  
 gctgcttggg aatatagcgg ggtacatcct cagtttctag accgtcaagc catatattta 2580

tgcccagagc cggagcgacc gctaattgtc tatctggaca gatcacgcgc aaatatacta 2640  
 tgccgtaggc ccacagcgtc aaactagcat ggtatagggc aatcgccata agatctcgca 2700  
 acgtttgcaa aggaagcatt cttattgccc ggacgacttg gcccgcgtgc catatagcgt 2760  
 gccgcgcctg ctcgctgcca acccaactccc gcaaagcaga ggcagggttg tccaatgcga 2820  
 gtgctcgact gggatcctcg gatgtagcca ggacttctac ctctctacg gacacataca 2880  
 tgtgcatcag aaccaagtgc agctgcaccg gagcctcggc cccatgcgcc atccggaaac 2940  
 agtcaaggat ccgccgaagc tggttatgtc gggacgccat gaggagggtca ccgtcccagt 3000  
 accgcgaccc cgcagctagc aaggagctca gctgccgaaa ctcccatacc agtccccaga 3060  
 ttgaatgaat gactgtcca caggtcagac ggatgtccgc gatgcggcgg ctcgattcta 3120  
 ggaattcgaa gtcagcgacg cactcgccga gggtcggaat acgggcattg gccgatgatg 3180  
 acgcggacgc tgacaatgca ttgcatgctt ccttccactg caaggcagac ctggcatccc 3240  
 atagcgatga tggagccgga aggggcagag acatttccgc gtaagtgatt agcggtcag 3300  
 taaggagggc catcgagacc tgggcttcga gccgaaagag acggtatact agtcgcttgt 3360  
 atgcttcttt gtacgccag gcgtgccatg cctcgcttaa gctgtggcca gcctcgcca 3420  
 gttgcgtcgg cagaggcgca taggcagagt gatggaacat acctccccgg cgcaccatag 3480  
 taaccagcgg ctgacgaaat gcttctgaaa tctcaatctt gcggctgtta ccgtccata 3540  
 gtccaatttc gagatagagc aagtacgctt gatggagggtg gagggcacga tggtcgtgta 3600  
 ttccctcaaa gctaggaacg caggcgtcga ctccgcatgc gaatccgttt cccaacggga 3660  
 tccgggggtca tcaggcgctc gccaacagag agttctggcc agctttggga ttgaagggtc 3720  
 cccggtggat ccaagaatgc gctgaggaaa acggggcagt aaggtagtag cgaatgaggc 3780  
 tgtccagcag ctgcaccgag gggaaggacg acagaactgc agagatgggg tgtttcatct 3840  
 ggctgagaac gatcccaagg atcttgctgc gggaagagag gtcgagactc ggttccgtcg 3900  
 cacagggact gctgtttgcc tcatcgatct cttgaggagt catggtggag gttctcgcgt 3960  
 cgggtgggcaa gaggagattc tcatgctcgc agtagccatg gtcctgagga gctgggacaa 4020  
 agcgccatcg cagggtgtgt attgaccgcg tgctccgcg ggtgccttct tctgcttccc 4080  
 ttgctcgagc ctggaatggg gactctgcta gaggcacgct aggagcctgt ccatcgaact 4140  
 caaaggggat atggctattg taagattcca gaaatccaag gtcgaccatg ttcaggtcga 4200

gggtccgtcgg taggggcaaac gtgatcaatc cacggggcgt gcgtaccgcc actgggcggc 4260  
 tcagtgaaca gagacgcggc cgccagctcg tctctgagct cctgggagat gaagtcaggg 4320  
 tgaatgcgac tcggtgcctc ctctgaatac attgaatgga gctcgctcac ctctgggggc 4380  
 caggcctggc tggtcggcat atccaccgta ggagtgcga gggagtgagt ctccccagca 4440  
 ccttcttcac ccgcctcgac agggcggttca gattcagaaa cacaattgct tgccccccga 4500  
 gcggcttgcg cgtctgcgtt aggtggcaga agctgtgcgc agttctgggt agacttgggc 4560  
 ggagccacgc actcaatatt ccgtcgtcga catctagcgc agggtttgtc ttcgtcgcac 4620  
 ttgaggtgat cgtccgcgca ggcaactgat gcctgggatg cccgggggtgc tatatgcggc 4680  
 ttgccgccgt gatggcgtct tctcaaagcc ttgttattgc ccgggctaga gggcaacgca 4740  
 aaatgccgcc ggaggcaggt cactatactc agtgggacaa gaattgagag gtcagctcca 4800  
 tgggagacgt tccatttgcg aaccgttggg tcacacggac actgatgggg ttttttgggt 4860  
 tgctcagata gcgtagcaca tttaacctgtg aagggcctca gcaacagaac ctccggaaag 4920  
 acatgggccg aggggggaaac cggttccat gaagctgtcc tactgtatgt tgaatcctcg 4980  
 ctttttc 4987

<210> 4936  
 <211> 5328  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 4936

gcgcacgtgg agagacgatc atgaactaga gtgaagccgg gccagttgt agctgtgtag 60  
 ctgtgctggg tacgttccc gctggaacac gccaacctgg gtttcaacta tgccctcttt 120  
 tatctacctt caacgaacgg gacaaaccat gatgacgaca attgcataat atgacctgtt 180  
 tagtacggga tcaaaccag gtacggcaca tccgtataga aaagagaaat atagtgccgc 240  
 aaacagcacg ttccaaatgg gtatctatcc tgtacagtat tatacaacca taggctcata 300  
 gatggcattt caccaatccc cacagcacc atagtcctct gcagactaat aacttcccat 360  
 cccacctac tcttgtggc gcgcaaaaag gatactttt ccggccactt atgcgtatca 420  
 ggcaactatg tcaatctgc atgttgggtgt gtcaaatgcg agctccctca aacacagatc 480  
 tccacattgt gtattttgcg aagttcagaa ccgaccaata agcggctctc agccccaggc 540

acgaatgtga aaaagatttt cagaatatga ggagcccatg gccagatat caggggttggc 600  
 aaatctcgct tgtcgctgat cgcagaacat gcctgaacgt aggataagct tcgacgcgct 660  
 gaatcgaata ttcgggtgat ccgatgtggg cagggggctg gtggcttcag gcaccgagaa 720  
 gcaaccagca gaatatggtc tgaggtagat gtttggttgt ggtcttgctg ttcaaaagtt 780  
 gaattagccg ctggaagacg caaatctggc gttggagcag catgagaatt aagaacttac 840  
 acatttagcg gatttgcttc gggcggtgtc gtcgcacagg gtgtgacctg gccagctcga 900  
 ccatcggtt tagtgtctcg ccatagcctg atcttcgaaa tgcccaattc ttcaaaaact 960  
 ccctggtact catgaccggc tcacgaccgc ggaaccagc cgtattcaaa gccgctcctc 1020  
 ggaatttggg cggtatgtgt cggttaattgt tgataatgtg ttggtgggtg cagagtggga 1080  
 tatggagctg ttgggtcttc tgttgggtgct gacacaggtc gctgagccga ctcgtagcat 1140  
 acgtctgggt gatgctgatt ttggggcggt atttctaccc cggccgctcg aggacttga 1200  
 ccttgataca tctgctgata cggttggtag ctgggctccg gtagatgctg agtattctga 1260  
 gggtgataac cgacgtgcgg gtgttggacg gacatcggtg caggcacttg cgaatgactt 1320  
 tcgtagcccc agggctcgac tttgaccgga tactccgaat ccgaagactc gcattttgaa 1380  
 ggagagcgag ctgagccgta agggggccac tcacgcgaag tcgagatctg actcgccgctc 1440  
 gacagagccg acggcgctct agatgacgga ttcggttccaa gggcctcggg atattgaggg 1500  
 gacggtataa gcgaggcctg ttgttggcta tacggctctt ctaccggacg gtcgacgagt 1560  
 cagcaccatc aaatcgacgc agctatatgc gatcaggggc cagtggaggc tcacctaagc 1620  
 tctggtaccc tggactccct gttgccatgg ataactgatg tcttaacgct ctaatctcag 1680  
 tctccagtaa agcatttcgc cgcacaacct cgtcgaatta atcgcccttg gctttcagct 1740  
 ccgccacttg aagtctgagt cgctcaatat gctctcttgt tcgttgctga atagttctct 1800  
 gggcctcacg atcgttggcg cgctttctct ccagttgctc tgcggtgagc gatgttactc 1860  
 tacgtgtgcc agcacgagtc tctttcttct ttggctggga ggggtcctga ttggagcaca 1920  
 ttttggctcc gcttcgactc tcgctcggca gacttgacta ggtagggatt ctctcgctct 1980  
 ggatatgcct gggtggaag caagaacact acatcccagg tttgtgcgcc gcagatgcca 2040  
 gaattctcac gatattgttc tgctcggtgcc acatgggccg tcgtaagaca aagcctggat 2100  
 gcctggaagc ctagaactgc gccagaaggg aagacagaat gagatcgaac cgaagacctg 2160

ggaaggaag gggcgtaaaa aaaggaataa atgaacggag ccccatagca ggggtgcagga 2220  
 caaagataaa aggatctgtc cctaaatcaa gccactggaa acgcgcggat gtcaagagct 2280  
 gagatcggct cggatttagg ccgtatggtc cttggacgca aactgaacac agtctgaagc 2340  
 agccactcga tcagtgaata ataatgacat taattattat tgacagttag ccgatatgga 2400  
 tcccaacaac attattatta agcattaata gtttgggact ctggggcccg gatattccgt 2460  
 ggacactcac ttcccaagat aaacagtccc tcaggagcta gggcaccaat cacgaagtac 2520  
 aaggacgaga ggatacctcg ctggaggatg ggagacgatg gcgattgcaa gcattgcgag 2580  
 catagcgacc cttctcaaga ggctactatt atgggtccgc gctatggaat cctccgacaa 2640  
 acccaccac ggaacaagcc ctagtttcca attggagatg gtcctgtgca ctatgtagta 2700  
 gtcctacag acggaagcct cgcagcccg aaaagcgttg atttagttgc cctgcgtggc 2760  
 tatgcgaagc taacgagacc cgagttatta ttatcataga ctgcgaggaa taccgtttcc 2820  
 tgatctgcat tccatagcac agacgcacga tgtggtcgta tatcagacaa tcctagaaac 2880  
 gaaacgaatc ggtaacaccg gtgtaccaag tccgcgggcg tacagagtac acgaggttta 2940  
 cccgagccac atggctgagt ggcgagagaa cgtaccaga acttgtagcc agacactcgc 3000  
 ggttatggcc cagccccgt agagctccgt gaaggaaatg catcgcgacc cgagatttgg 3060  
 cgcagtcctc cgtatatgt accgtctgcg aacggtcgtg cggaacgttg taagacggtt 3120  
 atagcgaaaa cggaacgaat tggctggact gaaaggctga aatgcatcga cagttgggct 3180  
 actcagtatg tttgatccat acggatttct gctatcagtc gacgacctgc ggtgcactca 3240  
 ttgcactcat tgcacgtaga cgaggtaggc gaggtgggct tcccaactcc caagttccaa 3300  
 ctcccaattg cccaactgct caaggacat tctccggagt atcgccggcg aaatgataca 3360  
 tttatggatc cccgcctgt gaggacctcg attccacaga tctgtgacct tggcgccgc 3420  
 ggcggccacg aagctgtccg gaccgataga tcgggcgaaa ctacagatgcg gcctgtgagc 3480  
 ggtgaataac atgctgacca gctaagggtg gctagtgtc ccctcagtga gggcccgga 3540  
 tctctccgtc cgccaatctt tcatcgttga atcttgaag agacactaac gtggttggtgta 3600  
 agcgagctgc gcatgtaagc gagctgcgca cctgcataca gatttcccat attttgacct 3660  
 tttaatcaac cacaacgcct ttatattaat tattatttat ttggacaagc atttcttcta 3720  
 tgcccaattc tatggcaggt actacatgta ggtaatgcc gtgcctttgg tgtttgtgca 3780

ccttctgctg gtggcccgca tggaccaggt attgcctgaa aagacgcatt atgagcttcc 3840  
tcgagctctg tagcctcttg tacagaaaga ccattatcat gagctatcca tctatgcgta 3900  
cgagctcgct tcccccttg tatagcattt tcagcacgta gtgccctatt ctcttgctcc 3960  
aatagtatgc ccttttgcat tgcaatttga cagcctttaa ttagctgggt tagggcatta 4020  
tggggcgggtg atgggtggact ttttgagtgc tgtttgagaa aatctctgag taaagaagct 4080  
tgcttttagaa gctcaccaac atttgctgggt gtatgtaggc aaaaagtact tgcttggtg 4140  
cacggcttcc aggggggtgta ggtgtacaag cctgaatact aagctttgaa agtactgggt 4200  
caggattcaa tggcactagt cctgctgctc gaaaactgtt tctgattgta tccagcttaa 4260  
atatgctgat tcgagcttgt agataggctg caaggaaatc aagtttgta atatagctaa 4320  
tgccaagcta tattttctga aaaccaagct ggcatacaag tacttcaaaa ctacaaaaca 4380  
tccaatatca agtagttata caagatagga ggaatatgct ggcatgcaga gtggtataat 4440  
attatgatct gtatagattt gattaaattc tggatatata tggcttccat ggctatcaag 4500  
aactagaagt taatatcttc tatatataca atgctctgtt gacaggataa actgcttcta 4560  
aagccagcaa aggctagttt tattagttgt agacttgta aaccaaccc acaaaacccg 4620  
ccccaacccg ccccgacccg ccaagaaatg ggttgggtta gaccttctaa ttatctattg 4680  
ggttttggt atttttggct gcccacaaagc ccggcggagc aacctgctgg gttgccaaga 4740  
tatctgaata ggtatattac tgtatttaga ttatatttct ttacttagat agttataata 4800  
cagtatttaa atacagtatt ttattaacta tgtagatcac tgcttattag agtaatgata 4860  
tgcataactg ggttattttg ggttatttag gttgggttag aattatttgc taaacccatg 4920  
ggcggtttac tgtgaaggta acccaccaca aaaccgcgt gggcggtatca gctaggccta 4980  
aaaaccgccc ccaaccgctg gtttaacaag tctaattagt tgtctatcta tttgtactaa 5040  
tttcaaatca ccagtcaggc agaaggctg taaaccatgc ttggttatac tgcttgccct 5100  
taaagataag tattagtaga agtacctatc tagaagtact gattgactta attgcagtaa 5160  
cctattcaca gtttctggc tgtagaactg gtctttggcc acatgattct gacttggtaa 5220  
tcactttctg atgtgcacaa aggccattg caaagccagt cttatcaaag ttgtagatat 5280  
catctggtag gatcctgtat tgttcaattg tggcttgtaa gaattacc 5328

<210> 4937  
 <211> 3016  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 4937

```

tttcgccatg tctgggtccaa aaggggtggt cttgttgctg ccgaggcccg cagcccgtta 60
agccggtccc aagagctgtc aacgccatct ggtccggcct ctcccttttc tacatcctag 120
gcgctttgat tgtcagcatc actgtatttc cgacaaacgg gaatcctttc ggcggtgacg 180
gcgtcaacgc cagtcccttt gttatcgctt ttcgcgaggg cggcctaccg ggccttgccc 240
atgccatgaa cgccgtcatc ttcattctcg tctctcttg cggaatgcg caggcctatg 300
gcgccacgcg gacccttggtc ggccctcgcc agattggtat ggcgcccagc ttcctccaga 360
aatgtgacaa gcagggacgt ccttactacg ccgtagccct aactttcctc gtcggcggag 420
ggctgtgcta cctcaacgtc agcaactccg gagctaccgt ctttggttgg ttttctagcc 480
tcacctctct ttgcacctg tacctgtggg ggatgatctt tgtatgtcac atccgcttcc 540
gcgcccctg gaaggcccag ggccgctctg taagtccct cccctggaag acctggacgt 600
ggccctgggg atcgatatac ggccctcggtt ggtgtatcct gctggttacc gttgagtttt 660
atctagctgt ttggccgctt ggtgagccaa gctctgccaa aaccttcttc gcccaattacg 720
tttccatcgt ggcaatcgtg gtgctatata tcgcggccaa aatctactat cgggggcccgc 780
tctgggtcag ggccaaggat atcgatctcg atgctggccg tcggttctat gtcgacgata 840
ttgatgcatt gaaaaggcgg acttttatga ataagggtgt ggattttttc acgggtgatg 900
gaagtgtata gtgaccactg gattattctt gggagtctgt gctctgtatg cttcgacgtt 960
ttgactccag ttaccgcag attgacatgt ggacttgctt ggcatatatg ctccgaggca 1020
gccgttatta gccaatgcac tgtatttctt cttttcattc ttttcgtcct tcttcccgt 1080
gccatgggta gggagaagggt cggcccatga cgataaatca ttcgctttgt cacggtgccc 1140
ggccgtcaag cacacgggtc aatatgacg atcactaaca acatcagata tgggtgaagct 1200
aggaatacca aatcgacccg actggttggg gaggatgtat ctctgtatg cgacttgcta 1260
gaaatatgcg aaagagtgtc gcagatgagc gaaatattgg caaaaattcc ttcagattct 1320
tcgggctatg gactattggc cctgtggaca gaggcgaaga cgaacagcct tgaccatgag 1380
agccacaaac tgtaagctg ccgaatgtgc tactagcgag agttgctctt ccctagtaga 1440

```

agcggaaagc caaagggctg aaagtgagaa ctatatatat atatcgtcgg ccccatgggc 1500  
 tacatgccgc ctgtagcctg ggacatatca gcaacgcaa caccctaacta gagcatagaa 1560  
 ccagctataa tagcctaggt actctactac attctccctt atactgtcca cagagagcat 1620  
 tgctggtgtg gcttgacctt gggcacatgg tgtggaaggc ttcgtaatgg caggcaaatt 1680  
 tactgaatat aaatgcaaat aagttcatgt ttaacagcga ccgccgctgt ggccctagtgg 1740  
 taaggcgtgt gacttctaata ctcaagatcg cgggttcgaa tcccgccagt ggttcgactc 1800  
 ctcaattttt attggatttg cagttcctat tggacgtgcg atatagtcca tgacttcttt 1860  
 tcgaccggaa acctatcgcc gctgtggcct agtggttaagg cgtgtgactt ctaatctcaa 1920  
 gatcgcggtt tcgaatcccc ccagtgggtt aattcctcaa ctttttattt cttttttata 1980  
 ccccttgcg ccgtttacct gaaaggtcaa tttatgctga aactagttga aagggctcgc 2040  
 tttattggac catgtagtgt ccattgtctg attgattttg tcacgcctc acattcgggt 2100  
 agatttgaga gaaaatgctg ggctttatac aatgtaaata caacttcctg caggctattc 2160  
 tgttcctttt gttctgagtc agtagaggat catacatcac cggcgacata cggaccccc 2220  
 aatgcttcgg aaccagcatc atggaagtca caacagtgat agtcaagcac gcgcgtcagg 2280  
 aggggactgc gaatgcatct cagtatgaac agtgctggcc tctcgtcggg gagcatggag 2340  
 gggctcaccg gctccgattg gccgggtcgg acttgctgct atccatggct ctttttggct 2400  
 tcctcggcca gctcttctgc tcttatgttc ctgataaagc atccactccc acccgacgtg 2460  
 agctcctgcc tctgccttgc tatcgcatc tcgtcccag cactggactc cctctaccgc 2520  
 gccgttcgga cgcgggagat tactcgacag attgtcagca accttcttat cgccaccgca 2580  
 cactcgcgtt cccacccacg tttccttata ctcacattac accgcgccgc ccgcttctat 2640  
 tttttcgcac cgtgggatta agggattgaa tactccatta tttatcgat acgtgtcgac 2700  
 atctctcgac aaccctattc ttccgtcaga atactcttat cgcccttga aatcccaccc 2760  
 gtgcgtccac ttccgtagtg aagccgacgc tccggttccg ggctgagaag agtttctgac 2820  
 acggtataat aactgggcac atgagtagca agctttggga attcttctta cgcgatgatg 2880  
 ttgagagctt tcagcgggtt ctggccagcg ccagctatac ctctggcggc cagcgcgcaa 2940  
 cagccggagg agggacacat ctcaatgcag gaagccccgg tccgaggatc tcactcttag 3000  
 gtgcttcgcg aagggc 3016

<210> 4938  
 <211> 2137  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4938

```

gtcggcgcttg gcatatacct cgtacccttc atcgacaatg gagaggggtga ggaacgcagt 60
gcctgcaaaa tccagtcagt gtaagatcga gttaagcgcg gaaataacta tagagactta 120
caaacttctg tcacaatccc acctacaatc aactgctttt ttccccgtcg ccttgaggcg 180
ttgcggaact cctcgttatc ccatgcattg acctcgccct ggcgggcgac agccgtggtg 240
ttcgggtaca tatcgagaat ctcccttaagc atctgcccgt tggggccttc gtccgaggag 300
gtcgtcagca cggggatgtc aaacgccttg ccgatagcag cgtgggcgac catgtttgta 360
cggaagtcgt tgggtgctgta ggcgcgaaac acggtggcaa ggccgacttg gtcgtcaatg 420
acaaaaaggg ccttcgcact tgtaatttct ttcactcatg tctcatgggc cgtctaaatg 480
gactggtggt gatcttacag cattatcttt gtcgatcctg ttccatgcgc taacgtttgc 540
agacgcagcc agcataagac cggcctggaa tacttgaacg aaacgcattt gctcgatatg 600
tttgacaaac agactggaac cgcaactttt gaactggcag acaagccggg acttgagact 660
gctttctatg tactttggcg ctgctgctgt ctttccagcg ccgtagcccc tcccttttta 720
tatccgtgcc atgaatcttc atcttcgtgt cctctacggt aaacgtagct tcgcgttctc 780
gacccggttt ccattcttcg agtcatcacc aaaaatatca aagtaacccc aggcattctc 840
accgcacgca actatctgca atgtcttggc tgacaaacag atgccataag ccatactata 900
ttaaccagcc aataatgacg tcgaacgaac ctgtaactca agcctgcgtg cagttgtaag 960
ccgttggcgc ctgctctctc aggtagggct tacgccttag gggggcagcg ggttttgcag 1020
gatgagcgtg aggtcgtaga ggggaattggg gaagccgagg ctgacaagga ccttgccttg 1080
cccaccggaa acacgaacgg ctctctatac tgttcatcag acactttcgt agagactcat 1140
acttctattc ttctatcagg cactcactga gcaacagaca ttctcttggt atatacaa 1200
tagggcttca actcccaccg aacaccgatc acagtttgaa acagttctac tcaagcgatt 1260
ccacccgaga gcccccaaaa taagctgcca tgtggtctca ccgcatgagc caatcaccgg 1320
attggaacat gttgtcaaag acggttttagc taaatagcta atccagtata gaaatagcgc 1380

```

cattctgacc acatcttgca tcgggcacat ctggagtctt cctcaatact agcagattca 1440  
tttccctctt gtctgtcatg atcgttcacc gaccggtctc atgcaatcga gcctgatagc 1500  
cacagactag ggacgggatg tagcccaacta gcagcagatg cccgtcgtaa atccacctat 1560  
caccgcacaa ctcgtttcca catacctatc tcggtatact gcacggccgc atccaccag 1620  
gcgaaagact caagcagcgc cataagcttg tctagcgagt ccaccctgc attttgagac 1680  
aaaagggcca tgtatgggac tagcgtgctg ggggcagagg cggctctgtc gggcatattc 1740  
agcatgctca tggctacggc cacgcaccag aggatcacgg gttgcgagac attctggttg 1800  
cagagtctgt ctaaacgagg atataaagac ttaagaaggc tctctctgac cggctgagag 1860  
cgggggaggg gaaaggtaac atgtactgca tagagaatcg cgctcaagcg aatggtgagg 1920  
taaactctcc gtgacagatc agtttcggca tcagtctgcc cattacactg gatgacggct 1980  
tcagtgggat cgttctcgtc gggcagtgac agaagacggg ggtggatcag gtttcaacta 2040  
tcacctaaaa gatctaacc tgcaggacta catggctctc cagacgcagc gtagtgctgg 2100  
atgacactgg agtctggcct agatggataa aacggac 2137

<210> 4939  
<211> 3642  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 4939

gccatcatat ccgtttcttt tcgagttttc tggggattct cctctctcga accagatagg 60  
gatgaaacac aggtctctgt tgagactggc gtcgtgagcg gcacaggatt caggtgcagg 120  
aagactggaa gaggaggaga aggagggaaa gaatcagtta agaatagatac tcattcgtat 180  
ttgaagatct ggagttaagt ggtgactggg agtgcgcctt gtctgggcct gctgttaaat 240  
tgcaaatcat gctgaaaatt acatataaat tacaggctct ccagcaacta gcaactctat 300  
caaaggctcc aaggaacttc cattccctc cccactgaat ccagcatgac ctagtgactg 360  
tcaattcatc aagcatggcc tatggcccgt gggctcaagc acgagtcaat gatcatggag 420  
ccatggagcc acggagccac agagccacag agccacagag ctttggacgt catTTTTTgc 480  
agcccagttg ccaactagct ttttgatctc cagattatgc tcgacctgca cagacgtacc 540  
ttcctttttc gtactctaaa aactcaaaaa cggtcgcgcc ttcaggcaat acttcggtat 600

agacaagcgc gttgctgcct ggagaagatg gcattgctag gtgggcattg ctaggcaggc 660  
 tgttgctgag aacaggtgcc agcatgtaca gcaggttcag catgtacagc aggttcagca 720  
 gggtcagcag gttgagcagg ttgcggccat tgcgatgatt cctggctctga ggatgccttg 780  
 aagcgcaagc tgttggcagc ggtcatccag aatccagatg atccatagtc aacgtaatta 840  
 ttctccagtc gaactgattg caggggttgca cagctctgga cacactagaa cacatacata 900  
 cataccctgt cattcgcaag gcagaggaca tggaacgtgg ggaagattcc taacaagacc 960  
 tccaagtctc cggcggacac ttacagcgtt ctggctgagc aggacgcaga ctgctcactc 1020  
 aaagtcagcc ttacagagac gccgccacat tttgtgtcgt tcgcaagctg gatttcggga 1080  
 tatccagatc aagagcgggtg agctgcgcaa aacgggttag ctccaagagt gaggcagtgc 1140  
 tggaagctgg caccatggat acttttgatt gggctggatt cgtctccata acatccttgc 1200  
 tccagcctgc ggtcagaggg gtttgatttt cataccccga gcctctgaca ggcaagacca 1260  
 aatgctgggc ccaacggact ccgtaggta aattaatgaa tgtcgagtct atttctcgaa 1320  
 aggccagaca gtggagatgg tgaactgacc ttaaaatgta ctcagagtac tctagagtag 1380  
 tatcagaatc cgtctctaata taatttactc ctgtgtagtg cttggctgct tccaatccat 1440  
 ttcatTTggg tatttatatc cgcataatatt cctacttaga ggtgttttag atccccaaaa 1500  
 tggaccccag acttaaggag tccttaagga gttcaaaaga actcagaaag tgttgagaga 1560  
 ctggtaacct acgagccgc gagtcttagg atctgtttcc ggtaggagca gtatggagca 1620  
 atgtccagtg gctcggcaac aacatacggg aatgggagga gaggaataat aatccaggtg 1680  
 atgaaaaata atgagtattt gggaactgca ctttcaaaag atgaagatcc accagtggct 1740  
 cgagtggatg aagcaagatc aatgccagtg ccagagtaga gatgacgaca agtggccgtg 1800  
 tgcggagatc aacatctcat atctccaggg tcatcataca tggagcggta aaagagctac 1860  
 gattctgtaa tctctgtcac aaaaggagga gacatggaat gagcactttc tgttcccagt 1920  
 tcaataatac tgttgcagga aaatgaagtg ctaagtgcta atttcccaat gacagcactg 1980  
 tggcagtgc cgtattctag aggacctagt ggaaccacta gctacggcct ggccactcat 2040  
 acagtagctt ttgcttctgc actattcaga ggtggggcaa aggagaacct aggacacgct 2100  
 tcgctctccc gaggccttgg gcgattcttg gatgccactc tccagccagt cagaagcagg 2160  
 tctcccggga accctgaatt gaatccagcc tgccaggtac ctttgaatt ttgcatacgc 2220

cctagccagc accagaggtta tttttttccc ttttcccttt ttttaggtcgt tgcacgctct 2280  
 tatctggcag attttctgat gtacaccgtg tacaccttag cttcatgtcg gccatgaatc 2340  
 agtcggtatg ccaaagaaaag ggcttatgct ttcattctgcc tgtctcggca ttgcagctct 2400  
 cgagctgacg ttgcgtatga ggaatcccc acaggggagc ggaagggcat ccagttgctg 2460  
 gcaccggtcg gcaatctctt ctccgcgagg caaggcgca taaaggtgat accgaactgg 2520  
 aactgtttcc cgttcgacta ttggttcatt tgcattgagac ttcgcactgc tctcgcctcc 2580  
 tggcgcttgg gtcgagatca gggccgctgt aagttactga cggttgctgg gcggctgagg 2640  
 aatgggcacc gaggagtgc ggagttgcct attgtaggct catggaggca ttgattgttt 2700  
 taactcgatt gtttgtacat catttccgag catcagcagg actagcggcc atagtcggct 2760  
 gaaaagagca gatcaagcga tgggaacggc tggtttattg agtaattccc tcgtacccca 2820  
 aaccaaggtt ttgctgcttg ggcttgcaat aaccgaaaag aaaaaaaaaa aaaaaaaaaa 2880  
 aaaaaaatat aaatgaaaaa ccgccgtcag ccttaaaggg ctgcagagag ttccggggac 2940  
 cgcttccggc gctttccaaa tttgtgtcag cttcttcttc gagccccctt tggccgcacg 3000  
 gctcttttgc cactggatgc agtgacttgc agtcatatag cgcgtccgta ttgctgacac 3060  
 tgacgacagt acttggagggt gcatgcagag gaaaccaagc attatttacc tcgtactaaa 3120  
 ataagcggtt ggatgggacc aagggtactg gagatttctt ggccacagac tatctggctc 3180  
 tagcgtcctg aagcgcgctc attcgtactc catcaggagt agcctaacta cacttcacat 3240  
 ccattgccgg tcaatgctgc tggaaactgg aagcctgctt gttgtacagg gccagcatat 3300  
 taggtactcc gtagagcccc agagtatgat gacatcaggc agctctcatg aagtgcacac 3360  
 caacgagcaa gcatcatctg atccttcagg gtccaaacgg aaaatgaagc cgcacagact 3420  
 catgcctgtt cgagatggta tcgatactga aagtctgaaa ctagctttca cagccttggc 3480  
 ggtacaggca tgccaatcct ggattaaggc agcgattatg aatgtacttg ttgcagggta 3540  
 tcatgcatca gcaactcccc gagaaattat agctccgggc ctcgtcctct aaacgacctt 3600  
 gaaaaaccag gctacatctt gcatatttat agtctggttt ta 3642

<210> 4940  
 <211> 4765  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4940

tgcaattcct gttttggtec agttactttc gtcctctgat gtcgacgtgc agtattattg 60  
caccactgcc cttagtaaca tcgccgtcga tgcacaaac cggaaaaggc ttgcccagac 120  
cgagtcccca ttagttcagt cccttgtgca tttgatggac tcgtctactc caaaagtgca 180  
atgccaggct gccctggcgc ttcgaaacct tgccctcgac gagaagtacc agctcgagat 240  
tgttcgtgca aaggggetac cgccgtcctt ccgccttttg cagtcattct atcttctctt 300  
tattctctct gcagttgcct gcattcgcaa tatctcaatt caccctctca acgaatcgcc 360  
catcattgat gccgggttcc tcaaaccgct ggtcgacctt ctgggatcaa cagataatga 420  
agagatccaa tgccacgcaa tttctactct ccggaacctt gccgctagct ctgaccgcaa 480  
caaagagctc gtcctccaag ctggtgctgt ccagaagtgt aaagatctcg ttctacgcgt 540  
acctgtcacc gtgcagtcgc agatgacggc tgctatagca gtcttggcac ttagcgatga 600  
gttgaagcct catcttctta gcctcgggtg ctttgatgta ttaattccat tgactgagtc 660  
tgatagcatt gaagttcaag gaaacagtgc tgctgcctt ggcaacctct cctccaaagg 720  
tatgttctta ctgcggtttt ccacgtgcc acactggcgt gaagtatctg acgttttgta 780  
gttgagatt actccattct tgtccgagat tgggcggatc ctaatggagg tatccatggg 840  
tatttgaaac gattccttgc tagtggagac ccgaccttcc agcatatcgc catttggact 900  
cttcttcaat tgctcgagtc ggaagacaag cgcctagtgg gctacatcgg aaaatctgat 960  
gacatagtcc aaatggtaag gtcaatatcg gacaagaata tcgagtccga tgaagaagat 1020  
accgaggatg gtggcgaagc agaggtcac gcgttggcac ggcgatgtct cgagcttctc 1080  
ggcggcggcc ctaagcagac tcttgtagaa ggttaatgtt tccatcccat gctttttccc 1140  
ttcactgttt tctgagcgtc taatttccat tcgctgggct gtcttacctt ttcatgtcct 1200  
cttctgttcg ctgaattgct tgtctcttct tactttgata tacattgcgc tttcatgcta 1260  
ctggcggtta gaggcatttg actcgggtgc tgttcatttt tttccagcg agcattcggg 1320  
tgatacgatc tatatttctc tcttcatggg ctttcttctt gctcgggttg tttgctgtgg 1380  
atgttgattg tattcagaat aattgttgtg attgtgctcg gtcagactgt gtttagctgc 1440  
agcggtagct agatatattg tgtattcatt tataaacttg ccttatcccc tggatgaata 1500  
gccattcata tgttgggttcc acccgcaatt attattgctg cggcggaatc ggggaaactg 1560

ctctccgaga cgggccgctc gcgaagggaa cttcaaaagt ttcagctcag ttgcacttgc 1620  
 ttctcagcag acttaaaactt tttctattcg ctacacgtgt ggtctgctgg tgatggcaag 1680  
 cgctctacct tcaactggcta tcccggggcca gcgcctagga cctgctggaa cttactccgc 1740  
 cgggccaggt actcatgttt atcattctca catatatgca tccatcgccg gtccagtttc 1800  
 tggtgactcg gcacaggtga attctccagc aaaatcgata atcagcgtct caaggactat 1860  
 gaaaaaagct atagcagctg cgagcacatc cacatcatct acaacgacag tgccaaaacc 1920  
 caagtataac aactacctg cggctgactc cgtcgtgttg gcacgctga ctcgagttca 1980  
 gaaacgacaa gctacggtgt caattcttgt cgttttagac gaatctgcta gctcgcaagc 2040  
 actgaacccc tcacaatcag cgtcgggataa cgataacatt gagtcgattc tggcgtctgc 2100  
 cgcaaaccgc gagaatcaca gcagctctga cgaacttcga ttccaggcgc ttatccgaaa 2160  
 ggaggatgtg agagccgtgg aaaaagatcg tggtgtcttg gatgagatgt ttcgcggttg 2220  
 cgatatcgtc cgggggtacgg tcatttccct cggcgaccag agctattact atataacaac 2280  
 ggcaaggaat gacctcggcg tggttatggc gcgcagtga gcaggtata tgatgtttcc 2340  
 cgtcagctgg aaggagatga gagaccccg cactggggcc gcagaacaga gaaaagtggc 2400  
 gcgacctttc tgaatgcaca atcacctgca agatacacat ttactaccac gaccttaac 2460  
 cgtctggcac ggcgccattt tatggaactg aatgagcact cactgagttg ctgaatgaat 2520  
 gtataccccc gtcacttgca cggggctact tgcagcggcg ccgaatccgc acatctgagg 2580  
 ctatgcaacc cagaacaagc cgaataacga gccagacacc attacataga agtggcgggtg 2640  
 ttctgtgat cagaaatgcc atcacctggt ctcacgcaca gaccacaaga ccaaaactaa 2700  
 ttagataccc aatgaattta tcttctcact caaaggacat ttttgccta gtcttgccct 2760  
 gtgcctgggt caaccataag acacagatcc tctcagtat ccatggacct ggcttttcaa 2820  
 tgctggctcg tgtttgcata tggaggaaga gaaatggctt ttcgctgat gactctcatc 2880  
 atcatgaccc tggttctaag tttcttttcc gataaatcgt ggtctgggaa attctatagc 2940  
 tagggtacat gcaactgttt tgctgccc tctctctgct tccatagagt ggcaggtcat 3000  
 tcattctagc aagataaaag cacaagcact gtatcttaca gcggattaag acatatatat 3060  
 ctatccaagt ccccgccatc gaataaggaa tcttttttag gaaacatagt tctagctata 3120  
 tatgcacaaa tatgactact tcttcagagt cttctgcttc tctgcatcaa tcaacttctt 3180

cccctgcaca aacaagccct tcctagacct aacagcatcg acatacatct tcgccacatt 3240  
 ttcacgatcc gccagctccc caagatcctc caattcctct tccgttgccg gaacccaaaa 3300  
 ggggtccttg tcgagggctt caaaacccgc gaagattagt tgaggttggg cggcacctga 3360  
 ggtgcgcttg cggatttcct ctgcgaagcc gaaagattcg gcgacgggga gaaggagag 3420  
 gattgtgaag aaggggggtc cttctttcat tgtctcggag agaatgcggc cgcgtcggcg 3480  
 ggtgatgacg ccgtagacgc ggccaaggac ttcagctgca gatggtgtta gcatatttca 3540  
 tggatatctt cgtagcattc ataaagtcga ttgtgagata cccaggctag aaattgcagc 3600  
 gaatgagaag gcaagtactt actagaggct tggatttcgc aactgtacat ggcaagcatg 3660  
 atccggggac tccaatccag gaagccttgg gagatacttt cgcggacgag acggattgtc 3720  
 tcaccggtaa gacggccgag gtccacctca tcttcgtggt tattgatttg aatttcctcg 3780  
 aggaagactg ctattccttg gattggctcc tggcagagcg ggccttgggc tgtggcgagt 3840  
 tggaaggcgt aggtgatctt gtcgcagaag tcgcgacga tgagtgcgtc gcggtcggcg 3900  
 ttttcgggaa ggacactggg ttggtgcttg ggatcgtcga ggaggctagt ggttttgtta 3960  
 gtataggaat caacttaggg atatggggaa caaatacaat ttctcgcagtg tgttgactac 4020  
 tgtggcgctc ataaggacat tgggccctgt ccgccgagga ccgaaggcga tgatcttattc 4080  
 cacaacatcc ttccacagct ccttgtcttc cttgacttct tcgaaggctt tgctgagctc 4140  
 ctttctaaaa tcgtcaagag agagcaagga gacttctcta gcctcgcctg ttgcgtcggc 4200  
 ggctcgtcc tgctgtgtac tttcagagga aagggtagca ttttcaccct ctgctctaatt 4260  
 gattcgttcc tgggactgta ggcgtttgat ggtcccaaca tgcttggtta agaaatcagt 4320  
 aactgcttct ggtagaggaa tgacctttag tcggaccgtc aactgctttg atgcagaaac 4380  
 agccagaaca ccaccccttc ctagatctgg attttttggg gctgccatct cagcggctct 4440  
 gacaatggtc tcccgggatg gaacgattgt ctggccggtt tgaatctcgc acttcgcgaa 4500  
 acgttcacga aggtctttca gacaacgtc aaggtgcagt tcacctgcgg tcagaataac 4560  
 atgttcacca ttcggaagta cttcgtatag tgcgcaaggg tcgctctgtt caagtaggcg 4620  
 caggcccgtg accatcttgc tgagatctga cgggttgaca ggctcaaggg ccaactcgcac 4680  
 aattggcggc gtatctagcg agacacctgc caggttgatg cctccttcga gctgcgagca 4740  
 aagagtgcct gtcttcaata tgtga 4765

<210> 4941  
 <211> 5549  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 4941

```

ctcgtaccta ctcgtcattc attcttgtaa tggtcgagcg cctcaacatt tcgtgcatag 60
tgagcctgcg agtgcattcca tctcggtggt aactgcgtca aagaaccttg ttccgaatct 120
ttggctgacg gccgagctcg ctagaatctc ttgtagctac gacaagtacc cggagtatag 180
gcagcaaccg ggggtgatgct gacatagata aatatccatc tctagagagc cccagattac 240
ccagaactgg gcgagacaag actaataata gctatgtgcc atctgggtat cttcctgcaa 300
gccatccctt gggggacaca ggatctctat tgacgaactg atcaaagtta cagccatgta 360
tactcattgc tggtcggact acatttecta taatgagggg atccccaata gatgacaaaa 420
gttaccagtg gcagacgctc taaataaccag cttcgagatt atatttattg atattatagc 480
agaatggccg atctagtac gtgtcgaggt cggtaagcgt gactgggggc tggttgggtt 540
gaaaccaccg tctgggtaag caaacctcgc tgaccatgca gataaaccgt cagaatggtc 600
acacaaaaaa tccattgtct ctttgtgaca gagatattcc tcctctgaag cgagggagac 660
ttttgaaact cgtactgtag ggtcagccct cctgccaaag ctattcatgt tacagaagtt 720
taagccagca atattaaccc cataagaggt aactgcctt ctagggtagt cattcggttc 780
cgtacagttt ctcatcttat tcagatcacc tttaactctt ctactttctt ggtgatcgcg 840
atggagtccc aagaccgggt cctgatggg gtcagccaca ggaaccgggt ctccatggga 900
atcaccgcca tggtgacctt tttggcgacc atttttgttg gtttgctct gcgttcgcca 960
cttctcacag tcaaaataaa atccgacgat tgggtctgcc tcgcagctct gatattcgcg 1020
tacgccaccc taaccactac cgtactcacc gacactgttg gccgcagcgg ttgggatatc 1080
tcacagtatg accgttttac tatcgagcga cgcagcaagg ttcgtgatcc acagccataa 1140
tttaggattt ttcttttctc tgaagatctc tgaatcagat tgtgctcgcg aacaattgcc 1200
tctacaacac gacggtatcc ctggctaaaa tatcgatcat tctctactat cggcgtatct 1260
tcaccacttc aagaacattc gtggccgcga cctgggcat gggcgggctt attctgggat 1320
actggctcgc ctgcatattc gggttaatct ttgcgtataa tcctgtccag gcacagtgga 1380

```

aatcgtgggt gcctcacacg agtatcaaca accaggcctt ctggatggcc atgggcatca 1440  
tcaacatagt atacaacatt accatactat gcatggccca gccattggta tggagcctga 1500  
agatgagctg ccgtcgcaga atcttactct cagggtgttt tgctctgggc ggattgtgag 1560  
aaccctcttt gggacgggtg aaaaaagtgg ctgatacagt actcttttca gcgtctgcgt 1620  
cacaagcatc atgcgcgcct actacctgtc atgggtccag attgataaca tcaactgtaa 1680  
gtccgctgca atcagggaaa agcggcggat tcaccttcac gaggctaaac cagtttccat 1740  
ggacagacac gctctacctt gcaggaatct ggacggcggg ggagtctaac ctacgcataa 1800  
tctgtgctg cctacctatg ctctctagcc tcgtcaagca ttttcggggg cgatccgaac 1860  
gagggctgta ttccggcggg ttgggagagt caagaatgta tctccgccgc ctggatgggg 1920  
caatatcggt ctcaaaggct acagcaaaag gttcaaacag ttttatcaac ccgaatactt 1980  
gctctcaggt acgcattcag acggatgtcg acattgagt ggacccgagg cgctcctcta 2040  
tcgagtaaga gcatggagga atccctagaa acttagcgta cctgttggga taaagaacaa 2100  
atattatatt ttatgtccat tgaattctag attgctcaac aacgtagcag ctgattacta 2160  
ctgccatctt acctgattta atcgcgctaa ggcttatgta cgtcaacacc aagccctccc 2220  
tttgacgggc aaccctatc tatatagaaa atcacttctt cccattgtcg tcgaccttcc 2280  
accaattgcc aatattctca caacagtaag agtaatacga tctcgccacc tcttgccggt 2340  
gttcagtccc tccaccatgg ccagagtcag cgctctgcc aatcccagaa ctacgatcat 2400  
catcttgcag ggcgcgtggc ataatcccac ccattattac gatcttgccg cagtccttcg 2460  
agctctcggt cacaaagtgt tgattccaag actcctattc atgagcgggt cgcgccgggc 2520  
aaactcgggc ctctacaccg acagcgacca tattcgcagc tatgccgaat ccctcgccga 2580  
cgcaggccac tgtctcgtgg tcttgatgca tacctacagc gggcagggtcg taccaacgca 2640  
ctggccggat tggacataac cacacgcaag cgattgaacc ttccaagccg tgtcatacgt 2700  
ctggtttacc tgtgcgtca cgccttacc ataggactgc tcaatgtttg gcatagtaaa 2760  
agccgctggc cgccaatttc gccgacgacg gcacggtcga gtatcgcgat gttggcgagc 2820  
gcatggttgg accgggtctc tcaaaggaag atctggagtc ttacattgcg cggctaaaac 2880  
cctggaatgg gcaggcgtg tatcaggaga tccgggaagt caccggatg gatattccag 2940  
tctcgtatat cctcagcctg cagggtatga tgctgccgat cgcatatcag aacgtcatgg 3000

tggcgggtat aggggctgca ggaggggaagt tgagactttt gggctagata ccggccactg 3060  
 tgcgcacgct acaatgtcag cagaggtggt gcatacagtc gcgagcaggg aaataaagga 3120  
 acagtgacgg tagaaggtgt cagtcgtatt actcctttcc taggtcagag tgatcagcaa 3180  
 ataatgtact acttttacac ttctactact ttcagacttc tactactttc cgactttcac 3240  
 tacatttagt acattcggtc gctaaatcag cagggatctc gtaatctaga cattcctgac 3300  
 ttcactcgca tgtccccacc tcccttgtag cactaatctg atatgtattc cctctgcttt 3360  
 tctttgctct taagcagcag cttacctcct ggcttgggta tggtcacatc aacaaccctt 3420  
 ttaccaaacc aggcagcttt tatgcagcct tgtgcccaac gacagtcctt cacgtaaacy 3480  
 cccaaaatac gcccgccctt gtctcctgca ccacgtgcgg catgaacacc gccaacccact 3540  
 gcccaacggt cgtgctgcgc attagcgaga gccaaagtggg ggttggagcc cgtttagccc 3600  
 ttgttcgcca acctgcactt tttgaaatag aggctagggt gaccggtaaag aacaacatta 3660  
 actatTTTTT tataatcaac ataggctcgt gcgtcgggtc tgggtacaag gctgaaggct 3720  
 aatagtagca gttattatct cgggcttgat tcttcacagg atcacgcac aaattcattc 3780  
 aagtcaccag aacgcaaagg tagccccgc acaaatacac ttggcaattg atttaagttg 3840  
 acacaaaaat acttcagtgt gttgtttgta aggccatccg tagtcttctt cgttgagagt 3900  
 ttctacacag aagcctcgtg ataagctcct gaatactctc taccgacgaa taagaactcg 3960  
 cgaagtgtcc tgcattgccg cgcccgagag ttgttcacgc ctataatctt cttgctcagg 4020  
 aacgagcaaa gatcatcggc ttgtgctggg tggttccgtg ctgagagcta tatcttatcc 4080  
 cagcgacctt gagcccatcc ccataagaa gtgtgatagc gtcacatcc ctggatagag 4140  
 ggcaattcgg aatatcaaag tcttcggtag ccaaaggagg taagaccgca tctctaggaa 4200  
 gaacttggtc tgccctgat gagttgcgga tcttccatcc tgacaatggt atccggcggt 4260  
 tcatgagggt cgccagggtc acagattgcc gctggctctc tgatgcaggc ggattcacgg 4320  
 ccgcctgcct gataactacg gaattttcga caaggtcatc aagaaggaca tctttccagg 4380  
 tctctcgca tatggcgtgg ccagaacct tgccagtatg caccgactgc gacgcaaacy 4440  
 caagaaaaac gccagccat tgatgggact ctgggaaata gaacacgagg gccccgtcct 4500  
 ggaacggtcc atcgtcacca gaatacatag caatattgcc ctgggtcatg tggatattgt 4560  
 gcattccatc ttgtgagtta taccgctcgc caaagatgtg aacagtagct ccttcatcaa 4620

ttgctgcctt gattctaggc tccaggacgt cgatgatgtc gttattcggg cctggaatat 4680  
 catggggaag aactcgaccg ctatcaacgt cgaagagatt gcgtcgaatg taatctaate 4740  
 gtatatcgtc tggagaatct ggctctacat cgtctagagg gtggtagccg gttctgagat 4800  
 gcgagagtct ttcaataagt cggcgggtcg tgactttctc atccaccag tatacaagtc 4860  
 gagattcctg acgatctcca gatttgatat ttatggccga ttcagaatca ccaccgccgt 4920  
 tatcacgatg gtataggagt agatgaggct ttctcgtacc acggcggtca acatggtaac 4980  
 gtactggatg agctttccaa acgccgtaat tgtcaagggg catgttgtct attagctgtg 5040  
 taaatttttg aactctgaag ctctatgaac tgggaaatct ctagaaataa ttgaggactt 5100  
 ttctaggggtg taataaattt gaccaaggac atatactttg taggtgtttg gtgtgcgggtg 5160  
 aggagctttc ctataacgtc accactgttg cttgataatt cctctaccgc ggttggctgc 5220  
 tacgattaca gatattcgaa ccgcagttta tactggttac taatattgat aattatggat 5280  
 tcccatagga atggctgtta tagtaactta gtccacttta gatgagtggc cgcccacttc 5340  
 aatgactcaa ttctctcgtg ccggctgtac ttctacgagc tgcaaagtag ctggcttgaa 5400  
 ctaactcccc tcttgacaag tctctcctgt gcaccggctg tgctttttcc ctcgttgagc 5460  
 agacaaaaag aggatgggtg aggtgggggtg gattggtgga tttatcaacc tgccatgggc 5520  
 atcagtgcaa ggcgtacaga ttacgaggg 5549

<210> 4942  
 <211> 8336  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4942

caccggcggg gggaagcga atggcggtga ccacgaactg cttctcggcg ggaagaagag 60  
 agttccagaa aagccggggc tgcgaccaag catcatcgaa ggtggagctc ttggcacgca 120  
 caagattgcc gttggcagta cggtcaggag cagtaaagaa tccgcgaccc gcagtctggt 180  
 tggcctgttt gagggttgat cccttcagcg tgttggggct gtacgcatcg gggttcagcg 240  
 gaatgaacat ctggccagca ccgtcacggg tggtgtgtg aatagcaacg cgcggtggt 300  
 tgatgggcaa ctgctcaaag ttcggggccac cattgcggtt gagctgggtg tcaaggtagc 360  
 tgaaaagacg tccctgcttc gagtcagctt aggtaaaaaa gacaaaaaag tttgtcgctc 420

gccgcctacc tgaagaaggg gatcctcggt gaagtcaaca ccacgcacga cgtggccggg 480  
 ttggaactgt tactgttaga aacggcaaag agagggatac agaaggggga ggaggaagcc 540  
 taccatgacc tgctcagtct cggcaaagta gttgcggggg ttgcggttga gggtcattctt 600  
 gccagcggg gtcaatggga cgtattcctc agggacaatc ttggtagggt cgaaaaggctc 660  
 gaagccaaag cgcaactggt cctcctcgtc catgatttgc acgttaagct gtccggtcag 720  
 taaacattctt cgctatgtag tagaaataag gggtagcata cctcccactc agggtagcgg 780  
 ccagcctcaa tcgactcgaa cagatcctgg cgcattgtat cgggggttctt gccagaaatt 840  
 tgctgagctt cctcccagac catacttgcc aaaccttgca gggctctcca gtggaacttg 900  
 acgagcttgg tggagccatc ctccgtgacg agccggaaag tgtgcacacc gaacccatcg 960  
 acgtggcgga acgaacgcgg gataccgtga ccggccatgg cccagagcag ggtgtgaaga 1020  
 gtcgagggt gctggctgaa gaaatcccag gcggcgatc gggccgtggc agcctgcggg 1080  
 atttcacgat cgcccttggg cttgacggcg tggatcaggt cggggaactg gatggcatcc 1140  
 tggatgaaaa agacgggaat gttgttaccg acgatatcaa agttgccctc gtcagtgtaa 1200  
 aagcgggtgg cgaaaccgtg gacatcgcg gcgaggtcag aactgccacg actgccggcg 1260  
 acggtcgaga accggacgaa gacgggggtc tccttaccct cagcagagag gaaggaggcg 1320  
 gcggtgatgt tggagaagtc gccgtacgag gtgaagacac cgtgggcacc tgcacccga 1380  
 gcatggacgg cagctcggg gacctgcga gtcagcatcc aacgtttcaa tcgacaattg 1440  
 aagagtcctc agtcactcac ccgctcgtgg tcgaatcgct ggatcttctg acggaagata 1500  
 aagtcttcca gcagggtaga cccgcgcga ccggccttga gactctgctg gtcctcaatt 1560  
 gggccgccga cgtcagtcgt caggtacgag tccgtgtcgt caaggtagta ctcgacaga 1620  
 aattcctcag tggcctcggt agcatcggg ttggtatcgc gacggccgag ctgcctgtc 1680  
 atatacggac agacggcatt ggcgacgcca acaaggccga ccaggccgag agctcgcatg 1740  
 gtgaggtaaa gtcaagataa agataaaagt tgggtggttt taggaaagag ggataggaat 1800  
 gcagaggagg tcgggcttga ggtcgggtaa agggcgctgc attcctagcg taggacaggc 1860  
 cacacgggtg tatttatacc aagcgaggca acaggacgat cgtctctgca ggaacacaat 1920  
 acggcctccc atctttccat cacattgatg agccctgcc ggccacctg gcaggcacgg 1980  
 gagctgcgag ccggagccac ttagcttagt tcagcagcga ggtctggaag gcgcgaacga 2040

atcgaatcga cgccgttgct gagcttctcc acgaatccaa gacctcccac cgcaaagcaa 2100  
 gtacctacgt acgtcaccat cgttcagcag aaacggccag agcaacgctc gagcaacgct 2160  
 cggagcgatg tcttattcgg ggttaagcag gtggtgccga gcaggcgatc tgcttggcta 2220  
 tcagtaatta tggctctgatg agtgggtggg gacctggaat tgagggttgac ggtgcgatgt 2280  
 tgtataggtc tcgaccagag tgcttggtaa tagcagcag ctggaaggaa actcttggag 2340  
 tccccacaga aactggaagc tgggccttgc aaggcttggc atcagccaac tcgtacgggg 2400  
 ctatgccact attattgggc cacagcagtg tgattgtgtg acggcacaag aaagcctgcc 2460  
 tgcaaacaga acatcagcca atagccatca tttgatctgt ccatcgtaca ataattgcgg 2520  
 ccgctgtccg actttacaat ccgagaatag caacatacta gagccccag cctgccccgt 2580  
 ttgaccgcct cagcgaaata acaggagaga tcggcagttc tctttgttta ctgccgactg 2640  
 ctgtgctcag acaatgtagg cttattggag gatatacaac cagtctcgac gagtactctg 2700  
 agcaggctct gacactgatc gacatcgagc atgcccaggc tcggaattag ggattaatct 2760  
 gatcgataca aaactgggga agctaggccc gccctgaaat tacagtggcc gaacgctcaa 2820  
 tcagcttcgt cgagaagtc agaaatgctt gataatttga cccttctgct tcgggtctgt 2880  
 ttgagatcag cgtatctcga cgtattctgt attgaaaatt cggattgtta gcccgcagtg 2940  
 gaccgcagga tgaataacgt agactcacc cagtcggccg ggtaaagtca catgactcaa 3000  
 acgagtatca gcaagcaaag tacggagtag gccacaactc tatccacgat aagggttagaa 3060  
 aatccgtaga agaaagtgat ctagggtata cctcagattc tatgctaaac tcgctcatac 3120  
 tactctacat gatattctac attacagtag aggcacaggc tggatccggc gtcgcgggct 3180  
 gcccgaactt gggccgagga tcgcccactc ggccacggtc gcgcccacgt gatcttctcc 3240  
 gtccgcctgg gccagggcct ggttccctga gattaccaat gtcgcgtacc gccaaccgg 3300  
 aacctcctga gcaagctcga tcctcgtagt attcccaacg gggatcttga tttcattaag 3360  
 atccgtggcc tctgggtcgt atggtcccga ctgttcgatg ttggtcaggt tcgccacaat 3420  
 ccgaacatga ggtcctggag agtcaatgc cgccacagga tccgacaggg gggatatctg 3480  
 gaagatcacg cttgcgttaa cgggtggtgc ggccgcccag tcgaagtga atccagacgc 3540  
 cacggttgg actgaccgac cagtcgtgga gccgaggttg acagtgaccg cactagcatt 3600  
 ggatgagctg ggctgccagc gcgtcgacgc ggtgccatcg acaaccgaga tcggcaactg 3660

gccttggtca aacgcgacgg tggaagacac cggactgcac tggataaggt tgacctcgac 3720  
cgtgttattg gtgccgatct ctcggtgcgg acagtcaggg tccatgtggg ggaagatggg 3780  
gcaacgttgc gttgtcggcc aagccaacaa acaccgggat ggaggtgttt gcaaaccggc 3840  
ggtcggccgt gtccagcggg gcgctctgtg aacgctggag cacggtatgt gtgtagttcg 3900  
actgggccga gatgggccat ccgcgccagt agaaggttcg gtacttcacg tagggaatct 3960  
gcggtggcag gtttggttca atgtggatgg catcatcggg aagtagccga agacctagat 4020  
aaccgaagag gacgacttga ttggcgccgc catgaccagt caggaacggg taagccggat 4080  
gggtgccgcc gtttatgctg gcgttatcca gcactcgtc ggatagctgg aagaacggcg 4140  
cccgtgcata aggggcgtac gagtactgat ggtaggtgta cgcgcagcat cccgaaggcg 4200  
aaacggcacc agcggcaatg gaaaagatgg ccaggtcat cgcaggacca tcagcggact 4260  
gccggtttgc atagtagtct agatcagtaa gggcggtttc ggcagtgtag ttgtcgtagc 4320  
caaaggatag gtgacgagta caatatcagc ctgcttact gctgcagttc cgttcatggg 4380  
cgtgtattcg agcgtcactc cattctcccg gagcaccaag acattctccg aaatttcggg 4440  
ccacgtctcg ttgggctcga ggccgaactg ctggcggaat tgattggcgt actcgagcgt 4500  
ttcggaatc atcggcatag taaaccacc agcgtcgatg tggttcgcat actcgtccta 4560  
cgatgggttag tggcgcagat tgcattgcaa aagccgtaaa acttacagga tccgtcatgt 4620  
ttgtcagagt ccagtaactt ccatttcgtt ccacgatgct gccgtaaagc gcagcgactg 4680  
aatcgtagat cggaaagtgc ttctctcgga aggtgttggg atcgccgctc accaccatt 4740  
gatatatcag agacagtcca atgtcgccat ttaagtggta ctggtaatcc cagcaggccc 4800  
cggtgcccgt gcagttaccg aagcggccgc ttgtccacgg gtaaatcgca gcagatgggt 4860  
caatgtatgt cgcgtttttg gagccgggtg atgtcgtctc aatattcttc ttcgcctgag 4920  
ggtacaactt cgtcctgtag ttcgtgacag cttgggcagc ctccggatgg gaggcgacga 4980  
gtccaggctg catccagacg tcggcatccc agaagaccaa tccagcatag ggtcagaaa 5040  
ccaggccgcc tacggaaaag ctgttgacgt tgagtgggtc atcctgtgct gctcggatag 5100  
catttttgcc gactgtgttt tgcagcaagt agtaggtgtt tgcaacggca ataattggctg 5160  
agttaatgat gttgtcgtcg tcggggagct ttccgggtgt agggttgacg tagcgatcga 5220  
ccgagtcctc atgcatgata ctagccact cttggacatg ggagcgcaga gaacgctgat 5280

aaccagcatc taaggcttcc gacactgcgc gcttagccgt cgcttgaggg tctgggaatg 5340  
catccgtcga cgcagcaccg acgaacttgg tgatgcgaac tttctcattg gccacaaaga 5400  
tgacatcggc cgctgtgcg atggacgact cgttggcgct cacatagggc ttaccatgaa 5460  
taagtctgcg agacgacaaa tcgacatgct tcgagccagt aatgtttgca tagaagtaag 5520  
ctgagacatc agggataccc cacggtcgga ccgcagaata tatagcgccg tcattcttct 5580  
gggactccac aaaatctgtc cgaacagcgg agtatccgtc caatacgttg acgattgtcg 5640  
cgtgaccatc ctgcgaaggt gttatctcca tatccactac agcttgattg acattcaatt 5700  
tgtttgcaa cagtcgatac gtgattgcat aggatccttt gtcgccggct ggagtccagg 5760  
tatacgacca cgataagaca cccgctttga agtcatagct ggacttgaaa tcgctaagcg 5820  
tcacattatc cacagttgaa tcaagatagt cgtcgtcgcc tagatcaaga atgagaccgc 5880  
tccagtgagg cacgccgcta atcacgcttt caccgccgta ttggttcac caccggaagt 5940  
ttgatccgtt cgtttctgcc tgtatgtcga aaaaaccaga aatagtagcg aacgactgcc 6000  
gtcgcgaata gagcggccag ccgttgatca catcgccagc aaccggcaga tcgagttcga 6060  
agaacgggccc gacgctggag aactgatgc cgatgtagcc attcgcaact gaaccgag 6120  
actggaatg accttggtcg agagagctag ttgtcaaac cactggtcc tcgtcccacg 6180  
tactcccgg aaacatggac tggtaggtgt tgttgagtg cctgaacttg tgaattccat 6240  
catggtttct cacacagttc tcaacgcgcc catgattatt tggaaggctc gccctccgc 6300  
tagggagctg ggccagcaaa ggtagcaatg taaagacaga ctgatggaat ttgctattag 6360  
cccaagcgat atcatggggc gtttgcaag tctcaccttg aagcgcatth tgaacgctth 6420  
ctgaaccac agagaggatc aagaaaggaa cttcagcgt gccgttgat aatcgacgaa 6480  
actacgagaa ttaataattt tcgcacgttg cagccaagct catggctgtg ctaactgcat 6540  
atccaagatg agcaggcaga aagatgatct ctgagcgtg acggacgcc agaccccaga 6600  
ccccgcaaa gcctggagaa gccggaatc cgatgcgaca tcacatactg actcactttc 6660  
ccgaaatgac gtttgacttt ttgattcttc tggaccattc tttggtagcg gggaatctca 6720  
gccacggaag atcaaggccg gtccttgatt ggaagggaag ttcaagggac agccacgcgg 6780  
gagtgcctg ttcgtaacca gtccagctcc cggccgcat tgacgttgca gtaccagcgg 6840  
acggttgctt ccggcgcaac ttgacgcgtg gtatactttc cgacgtttgc gggtcctcaa 6900

aaagggacac tgcgttttgt ctgacgatga acaagtggat gctcgtggaa gagactatta 6960  
 gagaacatcg tcccacaatt agcccggtaa ttcagcgacg tccgaagtcg gctcactcgg 7020  
 tcgggaatgg gacaaaacac cggggtctcc aggatttgcc cgacgaaggg ggagcagacg 7080  
 tgataatcg acataccatt agtatattgt gaaccctca gctgtatatg tcacccagtg 7140  
 ttccataatt cgaacttctt tttagagacag aagcttgtgt cacacgccgc aatcagaaag 7200  
 accgtggctt tgctgaattt gcgaaagacc actgcgacac tggccgaatg ccgaagcata 7260  
 aaaggcaaaa agggctagca cgaagaaatg gggtgcaata aaacgcaa atcgggtccgat 7320  
 gaatgggaga cgacgggaag cgagaagatg gaggtgccga gacgaagagt tgccgttcac 7380  
 aatcacagca aactggagat cggcgagaca gaaattgcag cctcaggggt caggcagcag 7440  
 atctcacgca gtcgtccatg accgcctaga cgggaaccac caacacttgt tctaacctc 7500  
 agtcctgagg accaagcatg tatcgttgaa cttattcaag tttagttgag tttatcatga 7560  
 ctctcggttg tctaaccaga tatacatcgg cgtcctgagt tgcggacgct atatctgtct 7620  
 gtcgccgttt cccagccttg ctacggcaat ctccgccatt gtgctttgcg tctataccaa 7680  
 tttcgaagac aatacctacg gggttgatag agaatatccg tctgattgct atacgcctct 7740  
 agccccccgg catgcagaca cccatcgagt tactccacat acgcgagaaa aaggaatcct 7800  
 tagcgttgcg acagtcaaac gcgttgctga tgacgcagga gtggacaatg aaacacttgg 7860  
 acgggattag gtttacgtgc tggaattaag gggctcttga tcaggaagct gtcttgagga 7920  
 acggcgcccc gactatgcgg agatcagtgc gaagctgcac cagagttgcg gaccaatgct 7980  
 gtgatggcgc agtggcgcag aaattccacg aaccacctgg cataacagct ctagtatttg 8040  
 aaaatggaaa ggcacgcgtt gagtttcccc agtcgttaca ttgtcacgag gttcagtcct 8100  
 attgttgcca tgatatgatt tgcggagtaa tgcatatcgg cttcttcttg ctagtatagt 8160  
 atgatccgtg cacctcatgc agaccacca atacgcctcc atgcctccct ccgcaatgca 8220  
 atggccgtgt cccgtgttcg ttccatggca gactggtttt caatcgaaaa acgcaggagg 8280  
 aagtgaagac actcttccag tgacccccac gcaagacact tgaacacacc tggcag 8336

<210> 4943  
 <211> 1437  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4943

aacacaggac aatgtcttac tgatacccg cgcctagtag tcttgaagaa ctgcggggcca 60  
acaaagtttc caacacagta cctcaacgaa gatgaaggcg acaacggtcg atttcttcgt 120  
gaatccggca gtattgcttg caaacaagga catcattaga gggaacgcgg gggccacagc 180  
tgtgacgagc caatatcccc caaggcgagg aatcttcttg tcatagggga gaagcttgac 240  
cataagaatt ccagccatgg ccatcaggaa gattgcaacc atagcagcca acctggactt 300  
gcggatgtaa gttgtgaaaa gggcgggcgag tatgactgtt gtgagctgga aggcagcggc 360  
tggcattgcc atgaggattg tctgaagttc atcgtagccg aagctgttga taataatggt 420  
attcaactat agtagccagc tgagtcagtt cgaagtatgt agaaggtgga ggaaatggga 480  
ggcctacgct ggtggtacca cggtttggca cgcagattac aaaggagaag agcaagaacc 540  
accatgtctt gacgtccttc atggtctcga taaattggca cttatccac tttttggtct 600  
gagtagtgcg ctggaacttc tttggccgca aagatgcgaa ttctctttct gtgggggttaa 660  
ggaaacgcgc cgacgaaggg tcgtcgggga ggaagaacca taaaagaca gaccacgcaa 720  
ctgtgatgag tccaaatatg agaaagagca tctacagtcg atattagaat gtttatccag 780  
gaataactag caacagactg accttccatt tgctgaatcc ccctgtgtat tttaggatgc 840  
cgtacgcgat gcctgacccg ataagactgg cgggtggcgtt ttcggcaaac caaaaagagt 900  
gccgagagac atgttctttg ggtgtatacc acattccggt gattagtga aagccagggc 960  
tgatagcact ctcaaata ccaagcagtg ctctagcac catgagaccg gcatagttct 1020  
gggcacaggc gtggagagtg aggactacgc cccaaagaaa actgggcatg gtcaaccaag 1080  
tagagcgcca atagacagga gacaacttac atgagagcgc tgagataacg tcccagagga 1140  
aacctgacga atccaagtga tatagggtag gaggcagcta gataccaat gtagaagata 1200  
ccagaagccc agctgaactc ttgtccatgg agattctaga ttgctattaa cttggagctt 1260  
cgtatcgagc gaggaggctg tacaaggtct tcccgtaatc caagaatggc gctgtaggat 1320  
aaactggttt ctgcaccgct agtgagccac tttcgggaaa tttgagggtt ctgaatcata 1380  
ctgtcaagat attgaagtcc atagctgata tcccaggag gtatcagaca attttcg 1437

<210> 4944

<211> 5142

<212> DNA  
 <213> *Aspergillus nidulans*

<400> 4944

```

cccgattgtc ctgtaccgcc tcatcaacga aatcgggtcc cctgggctgt cctgtgtgatc 60
ggattcattg cgctgggaac gttgctgata cctatatcgc ttatgaacgt ccgcgtcaag 120
ccgccaaggg tccgcgcact ggtcgatgtc accgcattca cggatgtcag ctatatggca 180
ttcgtgttca gtcgctggg cgcctacatg ggtctcttcg tcatcctgtt ctacctatcg 240
ttctactccg aagcgaacca gatcacgat caatcgctcg ccttctatct cgtccccatc 300
ttcaacgggg cctccgtctt tggccggacg atccccaaca aattcgccga caagactggc 360
ccgttcaacc tgctcgctcc agccgccttg atttcaggtt tgttgatgct gtgtatgatg 420
gccgtgcatt ccaagggcgc ggttatcgtt atggcgctat tgtcaggttt tatgagcggg 480
gcgctgattg gccttccacc cgtatgtctg gcaatgctga cgggggacaa atcgcgactg 540
gggacgcgca tcggaatggg atatgcgata atcgcgctag gtgtcctgat cagcggggcc 600
agtagcggcg cgatcctgag gaatgggacc tcgctcgatt ggcattgctt gtggacgttc 660
ggaggggtac cgacctgtgt gtcggctttt atgtatgcgg cgattcggat ggctaagtat 720
gggccggggc ttatggtgaa ggcgtgattt gcattctatt agtaatttca cgaagaacaa 780
gaggcgaatt atcactgtaa attaaactgac agctggtgat ttctccttgc taatgatcta 840
catccagcac cacctacgac tggtcataac aagtcgtata acaacccttg tattcggttt 900
atctagaatt ctttcaaaac tttttggatg ctataactgt acattcacac cagctagaag 960
aacaagactt tcgatataat tgttcatgta gcccgtaga taagggatca ctattgtact 1020
ttgatagtct tcagcgctg aattagggca aaacgcgaaa taactaacca catcagcaga 1080
ctcgttacat tcacactgtt ggatacatta cgacatcaat gttggtgacc caggcaggat 1140
gaaagaatta tgggtgcaat caagtgttca actgggcttc gatccatta cgaactgggg 1200
gggtggaccg tttcatctct acgaataata tatatatgtc catgccctgc actctgcgca 1260
cttgctcat tcgactatcg caatgaaacg gttctagagg ttacttgatg aaaagagaaa 1320
ctaggagtat ttogaaacta gtcactaat aatacgtaga cagcaaacgc tcgtaaagac 1380
cactattaat attgctgaaa ttctacggcg gggtagcagc aacagaggca ccttacatct 1440
ccagatatcc tagctagatc cggcatctca cagtaacttg tccaaacgaa accactagac 1500

```

tcctcgctga agataatgtc caaaagggtca cattaagcag tcctgacacc gcacttgaat 1560  
 ggctgaacta gagcacgctc catatcccac acccctgcct ccacaaacgg attcttcgcg 1620  
 atgatatccc gcacttccag ctctgtaccg gctcgcagca tcaagacact gcctgtgatt 1680  
 tcgagcgggt cgtcgggggt ctttggtatgc cgtgagaggg tcggacccgc gaagacgacg 1740  
 gtcctgtcca agacgtaggg tttaagggtgc gagaggtgcg cctcacgggt ttcggccac 1800  
 gcttccatgt cgtctgcatt gatgggaatc tggacgagcc agtcgtatat ttgggacatt 1860  
 atgaatctta taccgttttc tttttccgtt tgtgggttcc tgggtatgcg agaatcgtgc 1920  
 agtaggttgg gaatgtgatt ttgcttgtag cgcattgctg tccgacaact gctttctttt 1980  
 atgctgctgt ccttgttcac tccgtatggt tatccattca tgcaggaata aagtgcattg 2040  
 atcagagaac aaatccaatc attactgtat atcgttgggt ggggttacat ttgactagat 2100  
 aagcatggcg taggatccgg agttaccttt tgatgcctct gacaatttct ccgagtcaac 2160  
 gttcagacac aaacttccag ccacgtggat atcagatagc atttattgct ataataatttc 2220  
 attacaatga ttccaagaga tccacaatta ccggactaac tttctcaacc tgcttctgta 2280  
 gccagatagc tcagtcgtgg tataagcaac ggataatagt tctgggatgg aaacaacccg 2340  
 ccattcgttc gaaatgagtg ttgcactttg gtgatgacca ttaataagtc aagaaaaagc 2400  
 tcctgctctt tctagattat acgtgaccta gcgtggtatt caagcgtggt attcaatggc 2460  
 ttagtgatcc ttctgttgtc caaacccaaa ctactgcga gactatatcc ctccacacaa 2520  
 tgggcagcat caatgagacg cagactacct ctatcccaac cgtggacatc ggcccattct 2580  
 tggacggcca ggccgcgcag gaagcgaaag acgccgttgt tgcggccatg cgccatgcct 2640  
 gctccacttt cggcttcttc tacctcgtcg gccatggaat ccccgaggaa gaccgcctgc 2700  
 agattctaaa atgtacaaaa cggatattcg atctcccat ggaggagaaa atggagactt 2760  
 ggattgggaa ggccatcggc cggcttttcc gtgggtatga accgccagct ctccaggtgc 2820  
 atcaggaggg cctcctcccc gatacgaag aggtaggtgc tcgtcgacct ggtaatcaga 2880  
 acgggatact gatcgtaaaa gggatttatt ctcggtcgcg agacgcctgc agatgcgccg 2940  
 gaggctggca cattccacac tggacctaac cagtggccca agaccctgcc ggacgaagag 3000  
 ttccgagttc ccataatgag ataccatgca aagatgatcg aaatgggtcaa agtgattctc 3060  
 aaaatactgg ccctcgggct tccggcagaa tggaattgtc catcggtatg gtttcatgag 3120

ctgaccatta atccatcggc gccactgcgt ctgctgtact atgctcccca gcctgtcaaa 3180  
 catgagaacc aatttggcgg tatggcttca attaatttct ttacacccgc tgtatgctgt 3240  
 gaaaactgat cagagatcca gtgggtgccc atactgactt tggcaatgtc tcggtgcttc 3300  
 tccaggaaga agactcagag gggctggaag tcttctatcc gccaaactcaa acctgggttc 3360  
 ccgtcccagc caaaccacat tectatgtga tcaacatggg ggatatgatg cagaaatgga 3420  
 ccgcaggata ctacagaagc gcgctccaca gggctgtcaa tagcaataca aaacctcggt 3480  
 acagcgcgcc gttcttcatg aatgggaatc tggatgtcaa gtgctatgcc ctggacggat 3540  
 ctggagaagt aactaccatt ggagaacata ttcgcaagcg gctgatggag actatcggcg 3600  
 gcgaagaggg gaagaaactg ggtctctgaa gggaatggaa taggtcctta agactacgag 3660  
 ttgggatcta acctaggata aggcttgcac tagaacgtag ttgaccctc ctcggcctaa 3720  
 aagaggattt ctagagcaag ggatcggtat ctctcgcat tttcgttgt aaacggaact 3780  
 agtctgtttc taatgtactt ttctctagtc ctggtaggca tcattctagt actgtagggtg 3840  
 taaaagggga caaacctgg tgaagattgt aagctgcgcc catccactca taattacaag 3900  
 tcgagcaaat gagacgattg ttgccttata attcggtcca cgtctgaatc ccggtactca 3960  
 ttctcaagct ttaaaacggg gtgcgccatc aaatataaaa tatattgcga gaaccgaaag 4020  
 gaacaccgaa gactatgaca gtctatgaag taaacagatg agcatattac cagcgttatc 4080  
 gtaccacaca agctacaaaa tggatgggtg tcaacaggct acagatcacc atggctggat 4140  
 aggtgaacca tattctcgca ccacattccc aacgtcggcg tctctctcac cctcaactac 4200  
 cctccggata gtattgcctc cgatacttgg atcctgcgca ccaagcttct tcaagagctc 4260  
 agtgctgcca cctagagagg tcgccaataa gccgggagcg actgccca ctttcacgcc 4320  
 atccttcttc aatgcctttg tccattctac catcaacatg ttaaggccta cctttgcgga 4380  
 ccggtacca acaaacggca gttgcttggg aagccccgcg gccgggatga catttttcgg 4440  
 atcagtcgtg tctgatgcag cttgcagtga ggacagccca ctggtgatga agagcaagcg 4500  
 gggatcttga gaattaagca gcaatgggag aaatgtggta gtcatgatat gggctccagt 4560  
 cacattgacg tcccaggatt tgttccatgc ctggcgggtt gccatatctt tgtcaatgta 4620  
 cgcacgaaa caagcgctg tcttcagtca gttaatttgt agagaagtat cgatccggga 4680  
 gcacacaccg gcgttattta tcaggcagtc tattcggttg tacttggacg cgatatgctt 4740

gaacgcggcc tcgattgact catcgctctc gacatctacc tggaacggct ccagtacgtg 4800  
atgggcggat tcggaaaaaa gttgcttgga agccgcctgg gctttctcta gattgcgccc 4860  
gcctaggaag atataatatc gctgattcga gcgcagcagc gacttcacgg tctcgaagcc 4920  
gatgcccgtg ttggcgccctg tgacggtcag gtctcgctat ggctctcatg gagagggctc 4980  
gatacttacc ggtgatgaca acaatctttg tcaagtccat attaatttag gtgacttatg 5040  
tggtagtcaa tatgtgattt gaactctgtc ggtgtgaaat atatggcccc caaaccaca 5100  
ggggattaga tgcttacgcc gcggcacttc gcgcagggt ta 5142

<210> 4945  
<211> 9540  
<212> DNA  
<213> Aspergillus nidulans

<400> 4945  
ctatgtccct gacgagcact agtctgaagc cggcgcaatt tttggcaagc tgaccaaggc 60  
cttgtcgtac gaaatgggaa cacccgtag gtccgccatc aatcgatcat atcaagaaac 120  
gatgaataag cttcttgtgc tggcattgtt agccacgctt ccgctgggtc cattgagtct 180  
tcgtatgtcg aactataagc tggataaggt cagttctagt gttgagatgg agcgacgcgc 240  
ctaaagtacc tgatttagat gagcgaatcc tctgatcatg atgatgcttc accaagacat 300  
ggattggggc caggagaaaag agcaaaacgg ccataggccg tgatgcgctc cccggcttgc 360  
cctttgaggc cttgcgacgg cggatattga tgatccgctg aatacaattc ttcggcatga 420  
taacgaatct atagtctcat gattcagttt gtgacttctc gaatatattt gctgtggcga 480  
aacgcatcac agtaggaagc agcttatcag cttcggccag gaccgaggtg tgaaagcatg 540  
cacatacatt ttttgattat cagcgagtgt tgacccgcat tatgccatga aaagcattta 600  
tcggcgtaact ggttccttta ctttcatgat cttcaatcat caccaattac gacaggcctg 660  
tctttttatg tgaccatctc tatctacaca gtatacatag aagaatttcc caatagagca 720  
atacagcgtg ggatgtgggt tattatcctt ttattgtttc tgatctaaag tgaggctttg 780  
atagagccat tgtgctatgc tgatgacctg tgtccggtta agaggtggaa gccggccata 840  
tcagaccgta ccgtaaccat actccccagt aagcggagtg agagtataag acatggcggt 900  
tgtgctgcca ggggtgctgtg gccatgaatc gatgtaaaagg gtcccaaaaa aagagagagt 960

attctaggct atggtcaata ataggaagtg tctgttgata ctgtatcatg gctgccccct 1020  
 cggcgcatag acgagcgatt gacaggggtcc tccagacact tcgaattttc gcaaccgctc 1080  
 gggctaaata ctattggaag aaagcgagcg caataattac gattggagga acgacagggg 1140  
 aatatcagac cttttcgctg taagcatttg cggctttact agtactgggt ttgaacgagg 1200  
 tgctgctttg ttcggggcct caaacatctc tagctttcaa ctctctcttt tccccctctg 1260  
 cctcgctctc ccgtcagtat cctctctctt ttataccaac tctttcttgt aggatcaaaa 1320  
 ggtccttgat ttcactttta accttaactt aagccttgga accccgttct gggatcatct 1380  
 tttcgttctt cgtcccgcgg ctttcgctcc taccactatt tgctactagc ctaccctctc 1440  
 ttgtcagaaa gtcacgatac tctttgagat tgtcaggcag ccgggatcca acccttcggc 1500  
 taccatcagt atcaggcaac agaggggaatc ctgggagttc cgcttcaaag caggtatcca 1560  
 gttggtccgg ccccggtga gttgtcaaag tcgtggcagc agattatcgt ccgcattgct 1620  
 ttttcgcgt gaaggttatc acatagatct taatttcaat cgagccgttg ccagaaactt 1680  
 gtgaggattg actggctgca atacttctgt tggccagtct tttgtctact ccctgatctt 1740  
 caccaatfff cggattttctg gaagggtgaa gattctgggc aaatctgcac cctatgaaag 1800  
 aaatccaggc tactcgggat ggtttaatta cgattgtgat aacaaacgga tgaacaaaaa 1860  
 aagcccgccc agagactagg ctaaccgtgc gttccagcag ctttcaactg gcaataatca 1920  
 tcttctccgc ctgcacctc ccacattggc tggccctccg ttctttcacc accgacagca 1980  
 tcacaccgca cccaaccaa cattcgtcaa acctagcgac tctttctcat tgatatacct 2040  
 ctagtttctt attgaagttc tcagcttcca atcttctctc cgttcctgac ccgtctcgct 2100  
 tttccagtca ctgcgctcga tctttcccc tctcattcac cgctcctgtc ccctatacctg 2160  
 cctgtctcgg gtctagacag tcgtcaacgg tctctccatc ctttccacca gagcatcaga 2220  
 ttcggtcggg ttttgaaaat ggtcgtagca actatcaagt ccgtcctgcc actctttgtc 2280  
 catagctctc gctatatctg gttcacattt ccggagccgt tcccaattct ccaccctttt 2340  
 tcaaggcgta tcgaccgccc tctatactta tcaataagtt gttaacttcg cgcttttctt 2400  
 ccgcagggtg gttgtggtcg gtgatgggtc tgtcgggaag acctgtctcc tgatctcata 2460  
 cacaacgaac aaattccctt cagaatatgt gccaccgtg ttcgataact atgctgtgac 2520  
 tgtcatgtaa gtggattttt gtgttttcgc cgtgacaccc cggttcgatt ttcgcaggct 2580

tcctgcttct actcgctctg cgatgcgtaa agaataattcc tcgcccgggt tttttgtccg 2640  
 aacgtcgggt ctaatactac cgatacttct ttcaacttta ctgatcgcg ttttatggaa 2700  
 caggatcggc gatgagccct acactctagg attatttgat actgctggtc aagaagatta 2760  
 tgaccgactt cgctctctct catacccgca gacagatgta ttccttgtct gcttttctgt 2820  
 gacctcccc gcacttttct agaacgtgcg cgaaaagtgg ttccccgaag ttcaccacca 2880  
 ctgccccggc gtcccatgcc tgattgttgg gacacaagtc gatctccggg atgaccccg 2940  
 cgttcgcgac aagctgggtc ggcaaaagat gcaaccgatt cgcaaagaag acggtgaccg 3000  
 catggccaag gatctgggcg ccgtgaaata tgtcgaatgc tccgcattga cccaatacaa 3060  
 gctcaaggat gtctttgacg aggtggggtt gtcctaagtt tcgctcaggg ctcgtgattg 3120  
 actaaaaccg tctcaggcta ttgttgccgc actcgaaccg gcccctaaga agaggctcag 3180  
 gtgcgttctg ctatagatga actccacaca ttatggagcg ggccagcccc tggtatagta 3240  
 aaatcgggtc cttgttaaca accctgggtg ctttcgcatg tgtcgcttga tttcaggacg 3300  
 actgggaggg ggttgagaag cttgggttcg agcatacagt ggcttgcgat tatacgaaca 3360  
 ctttccgctc ttcaggttgg tcagtcctta cacagagttc tcgttgctat ctgtggatgg 3420  
 ggttctgcat aatggttatg tagggttagc cgttcgtgc ctgccattta cggcccatta 3480  
 tccattatcc atacttctct gagcgctgcg ttgaaaacat tgtgcaaaca agcagcctct 3540  
 ctcccaccag ctggttactt ggccccacc atattccgtt ctacacctat tgcgcctatt 3600  
 gttcccatga tatctagcct catcagttat caccctgatt cccagcgca atccttccgt 3660  
 tcaatgtggc cttcattccc agtctcttct cactcctttt ataacagctc tcatcgtctg 3720  
 aacttggcgt tggaaagtcga ggcgtcctgt tttggttggc tctggttcga tatgttcttt 3780  
 ttatgcgctc tcaattgtca agttgctctc atgccctacc catttattgt gccattttag 3840  
 cgctctcggt tcgctgagtc gtggactaca tagcacagat atatccaata tgaagatata 3900  
 ttcttgattc atttctagaa cagtgagtgt atctttttag tgcagcttca gtgtcgaata 3960  
 ctgagtttgt aggggactaa ggcgctcatt caggatgta caatgtgact gtttcattat 4020  
 ctcatctaca tgtttcatat ctcatthaaa gttcgtcctt gagcacggac tcaggctccg 4080  
 gcacttcggc ttcaacttca gttcagcat caaccactgg aacagactcc tgggtaacgc 4140  
 tttccttacg tccataccac ccaccaagt ccttaccgc accgttcttg accatgctag 4200

tgatgatctc atacgccacc tgcgcagcgg cgagggcagt cgtctcacc ttgttatcat 4260  
 agcttggaga tacttcgacg atatccgcgc caactatgtt caactttctca atcccccgca 4320  
 gaatgcggat gaactcacgg gttgtccagc caccgggctc ggggtgtccca gtgcctggcg 4380  
 cagtagaagg gtcaagtacg tcaatgtcca cagagagata aacaggctgg tccaaatcga 4440  
 ggccaatacg ctccataatt ttgttgacga caccatggg tccaccaagc tcatcgatat 4500  
 cgtcagcgtg aatacgcag aacccttgct ccggcggttc gggggccgtg taatcgctgt 4560  
 catcgatacc ggtaagtctt gtccgcagac ccgcagtggc agaggctcag ttgcaaatta 4620  
 gcccctcacg actcgcttg tggaaaaagc tgccatgggt gaatgccgac tgctccgact 4680  
 gccagtacgc cgagtatcgc actgggttcc aggtgtccag gtgcgcgtcg aagtgcagga 4740  
 cagtaatagg cttctgataa atctgataca acgctcgaag ggcagggagc gcaacgctat 4800  
 ggtcgctcc cagcgtgacg agcttgctct tgcccgcgga gatgcccttg ctgccatact 4860  
 cagatgaggc gggcgtgacg gggctgcggg tgccgagttc cagaaaggcc tcgtacattt 4920  
 ggcgctcagc gagcccgttg tcgaatgggg taatggggat gtcgccgcag tctttgatcg 4980  
 tcgcccata gctgtatggg tttatccctg cgcggtgtt gtaggatgtc ccagccattt 5040  
 ggcgggcgct ggcgggcgcg attgcgcgcg gaccaaagcg agctcctgct gcgcattagt 5100  
 atagaaacgt agctagttat atattggaga gttgatttac ctgggcggta gctgaccgcg 5160  
 gtgtcgaaag gcgcaccgat gatggcaatg tcgtacttct catccggctc gaccagacat 5220  
 ttgacgggct tcaagtgcgc aaagctggca tgtccggaga aagaccacta catttgctag 5280  
 ttagtctata gaattccact gatactgact gaattctcac ctcttgattc cattttctca 5340  
 gtagctctc tcgcacctct tgaggaacag actcttcgtc atgatgagag cagcacagcg 5400  
 ccgttccagc caacgcccac aatccagccc aggtcagctt catggtgaaa ccagaacacg 5460  
 agaagaaata accatgtaaa gtaagggtc tagcgagcaa acaagagtaa aagaagacgg 5520  
 aaaggacctt aatatatgga aaggcagtgg agttacttcg gagtagagct gtatgtttgg 5580  
 taaccgtacg gtcagattgg taatgcaatc tcttatcgat aatagtgtg gtgccgattg 5640  
 gctgcatgac aatggctctc tcgttgctc gtccagagtt gcctcttcgg gttgcttttg 5700  
 atctcaagtt ttgccgcggt atcaccagc taagagggtc gcacagaggc atcgacctct 5760  
 aaactattat cctgcgcgtt tatttttggg ggctgaattc ggggtgctgtc ctttcaccta 5820

gctaacatag ttccaaacta catctacacc agccgtgcat ggagcagaaa agatgcgatg 5880  
cggcgagttg tagtaacagg tctcgggtgcg gtgacacccc tcggcgtagg tgagttatac 5940  
tatttccttt gatgccctgc tgttgtctgc cccatcatcg cccctccaaa ataagaccag 6000  
aaacaccaaaa agcatctcgc ggcccaggac ggtgaaagcg atgattctgc agctttctcc 6060  
tagcatctgc aatgtctcca ctttccgaaa aggaagggtca attacaggcg ccgacgcttc 6120  
caaacaaggt agctagagac gatacagcgc tgtacagagc accctattct aagatttctt 6180  
gggggttctc cgcacctagc tggctacatg ttcttgctgt cgttcattgg ttctttgctc 6240  
ggcttttctc cttgggcagt ggccaatact gaactactac ttatactaca ggggttcgctc 6300  
gaacttgga gcggtgctt gatggccatt gtgggatcgt taacattaga catcgggatg 6360  
ctcgatatgc agacttgccc tgtgagattg ccgcggttgt tccgagcggg gctcgcgcgg 6420  
aggggagatg gacggcatcc gaatggttga gtaaagatgt atgtctcacg ccagggtcaat 6480  
attgggtatg gtgtgagaag ctgattaaat ggtgacagga tgagcgcaag atggcacgat 6540  
tcgcccagta tgcaatggct gctgcggaag aggccctgga ggatgcagag tggaagccaa 6600  
aggctgaaga tcagttagaa gcaacaggag tctgtctggg atctggaatt ggcaattttg 6660  
atgagattta tgatgcagtg gtagcgtacg acacaaaagg ctacaaaaaa ctgtctcctt 6720  
tgttcgtacc gaagttgttg atcaatcttg gggctgggca tatatccatg aagtatggct 6780  
ttatgggccc taaccattca gcaactaccg cttgtacgac ggggtgccc atctattggcg 6840  
atgctgctcg ttttattgct tgcggagatg cggatgtcat gcttgccggc ggggaggagt 6900  
cttgattca ccaacttgct attggaggct tcgcaagggc acgaagtcta gcaacggcgt 6960  
acaatgaccg tcttgagaag tcttcgcggc cgtttgatgc tgaccgtgat ggcttcgtgg 7020  
tcggcgaggg tgctgggata gtgattttag aggtgactca cccggagcta gcacaaaacc 7080  
ttggtactga cctactttt taggaactag agcatgctaa ggcacgaggt gctcgtatat 7140  
atgctgaggt gaaaggctac ggttgttcag gagacgcca ccatatgaca gcccccaagg 7200  
cgaacggtgg aggcgctctg ctagcaatga aaaaagccct aaagaacgct tgtctcgagc 7260  
cctcagctgt cgactatatt aacgcccatt caacttcgac tgtcatcggc gacgctgctg 7320  
aaaatgccgc aatcaaggct ctctccttg gccccgggg taaacagaaa gcggctgatg 7380  
tgaatgtcag cagtaccaag ggagccatag gacatctact aggaggagcg ggagccgtcg 7440

aggctctatt tactgtcctt gctattcatg aggttgggtct tacgttttga ttttgtggta 7500  
 ccgctaattg ccttctagaa tgttatgcc a ctaccatta acctggatcg tctgaatgac 7560  
 ggtttcgact ttaattacgc gcccaatgag gctcaggagc gccgtattga tctagcgttg 7620  
 acgaatagct tcggatttgg ggggacgaat agcagtcctt gcttctcgaa gcacgggcta 7680  
 taggtcgttc ggggtcgtct ggcttgtacg atagtaatag attgtatagg aaagcaatat 7740  
 gtactgtaat gcctgtgctt ttgacgttga caatggtcag gatacatctt gaaactcgtg 7800  
 gtgtatcctt ccaatcctag cgcttctttg ccctctgaaa atgtctgctc ggttgacaat 7860  
 gtggacttgt ctgtaccggg tcaactcttag cttacaattt gttcccgaat aaaactcact 7920  
 aatttctaaa cataagagca cgaatgataa gtcgaagaaa tcgaaatgaa atctgatagt 7980  
 tccccaatcc tctatcaaaa ttccagctct accgtcttcc tagtcgacat tcttgcgtcc 8040  
 attgcacgag cgcaggacct cttaccacag ccacatcccg acatttctga tggaactaga 8100  
 tcaacccta ctgcatatct acatagaaat aaacacaaaa gtcgacatct tctatctaca 8160  
 cttccattga aacaaccata cgctgtccca aacgagccaa aatcgaaatc tgcgaggga 8220  
 aagattctcg cgcgatccc gcaatcgga agtgaattcc acgaagcaat ccgcccggta 8280  
 gtattggatg ccctaagtga aatccgacaa aattattcac aaggctcaga ctggtgtctt 8340  
 cctaggcatc tccttggagg ggcgaatggc ttcaatccag gggcgaatcc aaagcaaaat 8400  
 gaggacgtgc gcttcaaaca gctagacaag actcaagagg ggaataatac gagagaaaat 8460  
 cggaactgc ctaagagagg ttataatcat gcgttcaaca gagaggagca aaatcatgag 8520  
 tccttggcta tacaagtact cccgcgcctg cgaggttctg ggtttacggc agatacatat 8580  
 gacactgtcc agattcagca ccagccgct ctgattctgt caccaggcaa gaatcggttc 8640  
 gaatatggag atgagttatg caacaagctg gtgaagaaca catcttccga tgcggcaatc 8700  
 attgaactac ggagtctgtc tacagtcaag tcgggcgaat ggctaagtcc ggatgctgaa 8760  
 catattcaga accaaggta ggtgtacct attccccctc tatcgcgatt cattctgcgc 8820  
 gatttgccga tatcaaaaga gctggattat acgaactctt cccaattcc cggcctcgac 8880  
 ccggaacaaa agttcaatct cattgtcctt gatccacat gggcgaacag atctgtccgg 8940  
 cgcacgggct actatcagac gcagacttac catgataatg aattgcttat gggctatata 9000  
 tcactgttac ttgctgtgca ttcttattcg catccttacc tgccctctca gattgatgac 9060

acagcagact tgagacagta cagatcccag tccggctcca acctttccac cgccgcaatc 9120  
 tggatcacia actctgccaa atcacgggag atactcacag tggccttaac gagtcaggat 9180  
 tttctgtctg tgaagaatgg atttggatca agaccacgt ccaagggaag cctgttacac 9240  
 cgattgaggg actctggcgt aacggtaaga ggtcctcgtt attgggaaaa gggagccaga 9300  
 acccgccacc acttgcata ggagtactgg tgctaaggct gttttgagaa gggtcattgc 9360  
 tgctgttccg gatgttcatt ctggaagcc aaatttgaag gcaatttttg agaaaatttt 9420  
 ctttacagcc agctctgagt ctgcagacat cggacttgac actgtcaccg gcattttctga 9480  
 ccaaatacata agatatacgg cgctggaggt gtttgcgaga aatctgacag ctggctgggtg 9540

<210> 4946  
 <211> 5637  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 4946

tctccggtaa aggaccagac aagtgcgaga agaagcttct tcgagatgta cgactcgatc 60  
 tgctcatact caagcgggaa gtcaacatgc tggatattgt attcaagaat attccgacaa 120  
 gctttgttca gaagactgaa caaagtgtta agggcacgga tttcagtaaa ctccatgata 180  
 tgattgtact tcttggcttc cccaagcgat ttgtgaacaa gctcatctgt ctgcaagagt 240  
 tgagagagaa tagttgacag catatcttgg cagtcctggg tcttgacagc actctgacca 300  
 gaaggcacac tgctcgtcat caagtcttcg aaagtcttag tcttaagtga ctgcacatag 360  
 ttcgtaatga tcatcgaagg cgtcacggta tcttcgttga accagaccat accgcaacga 420  
 ctaacagtag ccaaggtggc atatttgaga ctttcgactt cgaacatgat gcggacattt 480  
 ggaggcaagt tcagacgttc tccgttcgga agtgtcagta gtttgttgtc gtcgagcaca 540  
 ctgttcaagt tctcaacca ttcagggtcg acgtcgccgt caaaaacgat ccagtggcgt 600  
 tttgtgtctt caccgaggag gttgtccacg atctttctta aaataccggt aaacagaccg 660  
 tctgtccact cccgctgggt gctatcgagg ctaccgtaga gggcctcctt tgacatgacc 720  
 ttagagtcaa tgatatgaga gactccttcc actccttcga tccgctggag ggcttgaagc 780  
 agaatcttcc acgcccagca tttgcctgaa cccgacttgc cgaccatcat gacgccatgg 840  
 tgtatgcttt gaatttggtg aagctggaga atcttgggtg tccacatctc gctgtcgaca 900

aagtgtctgct cacgtgcaat ctcccgaata gcagcagtaa gcgcctcata gttggctggc 960  
acatattcta ctccagcaaa gtcttgctcc tggatctgca gcatcgtcgc cacgtcttcc 1020  
cgaactaatt ttggagcgat agtctcacga agactctgga caatgatctg gggctcaaca 1080  
atttcacctg ggccaaggct gccatcggag ttggcgatac gggcacgctt aagacctccc 1140  
gagctgacca gaacactttt tagggcacga agacaaaaat cgtagtgagc ttgcttagaa 1200  
agtcgctgg agcaatgatc gaagaatggc acggctctgct gtgagaggcg ctttgcctgt 1260  
ttgaagccct gggagaacaa catgacttcg gcaataagct ctttgcggg cttcgacatg 1320  
gcgacgcttc ggaagagctt cttcaagttg tcgggcaggt tggatctacc agcatagcca 1380  
gggttcacgg taatgaagat accagtgttc atgttcacag tcaagcgctt gccaacccaga 1440  
tcaatctgag acttttcac agtctccttg tttctgagac caatctggat attctggatt 1500  
tgttgcgaga cagccgaaag gatacgttcc tcaagacggt tgaactcatc gaaacaaccc 1560  
catgcaccaa cctggcaaat acccaggaag atacgacca tagcttggaa atcgaagggtg 1620  
tcgtcacaac agaagacgag agtgaaacga ccgagttgca gaccagggc cttgacggac 1680  
tctgtcttcc cggtacctgc aggaccgtaa ggagagcctc caagtctttg gcataaggct 1740  
tgagtaagcg taaggaaaca gcgatccgta agaggcgtgc gaacgaggcg ttcaggaaca 1800  
ccgaggtact cgaatccgta attcagcttg gcgtttgcca tgtgcacgta caggcgctgc 1860  
aggaagtcgc cctcagcctg gtagacataa cgcatttgaa gaagccagag atagtctgtt 1920  
gcgcttgtgg cattcgacgc tataagctta gaaatggtat cacgttgatg aacgaactcc 1980  
gtaatgaggt gctcgcatct ctttctgctg atgggtcca gatctccaag aacggttact 2040  
gcaaggagtt caagtatcct gacttgagca tcatagagt tagggagggt agtgccgctg 2100  
ttctccaggg acttctgcac ctcatagtc caaaccactt gactagccaa aacaacaatc 2160  
tgagcagggt agttggcaat aaaatcgtca aatgcggtgc ggtcaacctc agcagagtta 2220  
taaataaggct cgaattgctc aattgcctca gccaggagct cagcgagggt taacttcatg 2280  
ttgtctcaa gggcagtcag ccagtcgttg attctaggcg tcttgaccaa gttaacctct 2340  
ttcttcagcc ttacttcttc gccctcttcc gaggtgaacc cgacaatgtt gttgtcgtcg 2400  
tccatcagca cgctgatag accagcaaac attttcttga aatgcttcgc gactcggaag 2460  
atgtcgttac tgtttccgat gatctcaagg aggtcctcat caccaacaaa gtagaaacga 2520

gggaaggaaa ctctctcgcg ttccaagtat tcaccgagag ctttctggat cttgttaagc 2580  
 agctcggcca gccgttctaa agacttctgg acgccattaa tggcgagaac gtcgaggaca 2640  
 aacggcgatt tgtagacctt cttcatcaca gcgaagaatt ctgagttgat attctggaag 2700  
 cggctcgatt ccaggggaag aagggtgcttg atgtcagcat tgcctgtgaa gacaccttca 2760  
 aggtaaaccc actggcgctg aacatcaatc caaacatcga acaagacgtg gactcgggttc 2820  
 agtttgtctt cccaggatga ggcgtcctcc tcaaattctt tgtagtaagg tgaatgcctc 2880  
 atggcctgca gggaattcag gttctcactg cacttggcaa agaggtcgtc aaagccccga 2940  
 atcaaccgac atttgttctg gtaattaaca aggtcaagcg agtagttttg ccagggtctcg 3000  
 cgtacggact tcaagaactc ctcaagggcc atttcacctt gggcctgcgc aatgatatta 3060  
 cgaattacgg tctcgctagc cgcaagttga aggtcccata catcaccag agttaaaagag 3120  
 acgagcgaga acctcattcc cggtttaagg gctttgtaga tcttgagcca gtgtcgctcg 3180  
 cgcaccgctt cggatttcat gtcagagagc agcgggttga ccttcaagag ctgcttgagg 3240  
 acgttctgga tatgttcgaa cgcagcgtat tggcgcatc gactgggcat ctctttggtc 3300  
 atcttgatga gaccgtcaat agactgacga agttttcttg gctggatgct cgtccagagc 3360  
 gtgtctctca ggtcattaag gtcctccag atagtggaaa gtgccgcca aacggacatg 3420  
 aaatcctgga cctcctccag aattgcgggc agagaagatt cggcacttgg aggaagatca 3480  
 agagcctctt tagcctttga aaccatttcg aactcagact gtagagattc aaggcgggtc 3540  
 tggaacatgc taagagagcg ggatgcctcc tctggtggaa ttgtaccaga cacaggcttt 3600  
 tcttcattcc actgcgcaat agcctcagt atcttgtcgt taataacctt gtcctcagcc 3660  
 gcgatcttgg ctcgtaacgc ttcggctcgc tcctcaacaa tcttgccctt tcggccaagt 3720  
 agttcattaa gagcggccca ttcaccatcg acgttctcaa catgaagcca atcactaggg 3780  
 aactggtacc gttgacgcac aagagtagcc tgaccttggc ggaaaagatc cacttcaggc 3840  
 tcccatacct tggccttgcg cttgcattgt tgcacactgg taatgaaggc gactgcatga 3900  
 gcagtagaag cagagtccaa agatttcctt tccagtcgtg tcgggcggta gcaatctcgg 3960  
 aatgtacttc gcgcatgcgg tttccgagtt tagagccgaa ctttaagcagt atctcgtgct 4020  
 gccactggtc gtatttcgca ttgactctcg tctgaacttg ctcgtagtcg atcttaatgt 4080  
 taccaaacga ccggctgact tcagatgtgt caaaagtggc tcggctcttg cggatttcct 4140

ggagaagctg aagccattgg gacagatcat cgcccaggat gtcatagact tgctcagact 4200  
 gcaagtccca taaagactgg aattgcagcc atttatcgac gtactccgaa acttccttga 4260  
 gtctagtttc aatagcactg tagaccaaga taagctcatt tgtgcagtgc tgagggagat 4320  
 ccgcaaagca tgactctgac agctgaacct tttgtacttc aatggaaatc tgataacgcg 4380  
 atgacttgat cttctccagg ttgcagatga tacctagcca gttatcaaag tgcgagaacc 4440  
 aagttgcgcg agcatactgg agaggtggat cgagatgaag gacctggtta cgcatagaaa 4500  
 tctcgtgagt caggcctggg aactcaatgt tgtacgctgt ggtgtctgta tcgccatttc 4560  
 cattgacctt ctgcatagge tgaccacttt gtgattcttg gaatgagttc atccactcgc 4620  
 ggatagcctt gtgcagacgt tcgctaagaa ttcctcaat tttctggttc aggttggtgca 4680  
 cccaaaatcc gaggttgacg taattttcga gatttagttt gtccacggcg gcctggattg 4740  
 catctaagcg ctgcttgaat gcggagaact cgtatgggca agtcttgagt tcgtggatcg 4800  
 ctttttgaat ggtatcgttg atggaagcca gaactgcggt cttatgttgt agaacggcag 4860  
 cggaggcggc gaactctcgc acaaattgaa cgtgtttact ttcaccccg ctcggaatca 4920  
 ctgagtcaag agcaccgttt acgagagccg cttgcttcac atgtagttcg tacgagtgga 4980  
 cgaaggactc ccatcgaaga gggatgcccc tcacaatcat gctctgggcg tcattcatgt 5040  
 atccattgag taagattgca acgtcagtca tggacagaat agagcgggta gtttgaagca 5100  
 gcgtccgaac actttccatc aagctgatag cgtagggata cactcgcttg gcctccttcg 5160  
 agatgttgct aacggcatgg ggaacttgaa agttgagcca gatgagattc cgaatctcct 5220  
 tgaagagggc gataatttga gcatcaaat tcacggcgag ttccaagggt ttgcctgcgg 5280  
 cgcggttacg gataatattg aacagtcgtc cggaaatggt gatgcggcgc ctttgaacat 5340  
 catgtagcca cgtctcgaac acaggccgcg tatccaactt cttcctgaaa agattgctct 5400  
 ccgcttgag cttctggcct tcagtatgta ggtgccaatc ctctccaagg acgtcttcaa 5460  
 ctttcgcgat gtatccgtct agttgacgct caatctgacg tgcccaaaca atggctccag 5520  
 acacgggagg gaggtcgcgc agttgagcca tcgcgtgtgc ctcggaatga ccatactgct 5580  
 gcttgaaccg ctcatgcaac gcagaaatat cctgttttcg ttgtcaatag gtagttg 5637

<210> 4947

<211> 1907

<212> DNA  
 <213> Aspergillus nidulans

<223> unsure at all n locations  
 <400> 4947

```

gccgtcgccg agagtgccga gggagattag ttttactggt acctactcct cttcttgcct 60
ggtgtgctgc tttgtatggg ttgcggatgg ctaacctacg gtcctgctat ttagcacact 120
ggctcgcagt cgaaggcgta caaccgtcta taccgcaaaa cccgacggcc gcagattcgc 180
gtaatcttga actaatgtcc aagggcccga acgccaacgc tacgctggcg gctatgagcg 240
ggaatggaaa cgtcgcgggtt aagccgctgg tcaagcatgt cctgtctaag gagctacagc 300
tctactttga gaaagtctgc aatgcattcc tggacgagtc gagcgagaag tatcggacat 360
cggggtatgc gagcttgccg gaagatccag gtttgacca gcttgtcccc tatttcgtcc 420
aatattatc ggaaaaggtc acgcatggct tgaaggantt ttttgtttg acgcagggtca 480
tgcatatggc tgaggcattg gtacaaaata agtctcttta tgtggatcct atgtatgact 540
tctcctcaac ttatatttct cagttatact gacgaacagc agatcgccctc actggtcctc 600
cccatcctca cctgcttaat tggccgtcag cttggtggca ccgccgacct ttccgaacaa 660
ttcgccctcc gcgatctcgc tgctgcctc cttggcctca ttgcaaccaa atactctcat 720
tcctcacaca ctctcaaacc ccgtctcgcc cgctcctgcc tgaaaaccct cctcgacccc 780
tccaagccct tcggcgctca ctacggcgcc atcatcggcc tccacgccgt cgggtggatct 840
gaagccgtcc gcgtcctcat aataccta atctacattt atgggaatct actgaaggat 900
ggtcttgctg atgatagtgc acgacgcct gaggcggaaa aggtcctggg cttgctgctg 960
ggtattctga cagctctgaa agaggaaaag cctgtgctga cgaatgggca tgggcctggg 1020
atggttagtg aggatattaa gaggaggcta gagggcaa at tgggcgcgtt cgtggcggag 1080
aaggtcgcgg agttggggga cgcgagagt gcgcatgcta ttttgggata gtagactttc 1140
tatctaggtc tacagagcga aacaacctt ttattggggc gattttgcgg agggcgggtc 1200
agttaggctg tgattataat gaccatcacc tactatacca acaatactaa tgatttcacg 1260
agtcttagcg acctccgaaa tccaactgga ggctgtgaa ctggttgata cttctaaggc 1320
tctccagaac gtcctacgg atcttgcttg gaagtaaaag ctttacggct ttgttgcaat 1380
agccgggaag gctttgtagg attactcact agccagctct gctcagtgag gaattatctc 1440

```

tttcatttca ttatagtata tgacatgcta tgcaatcggg ccaacagcgg gattacttta 1500  
 cggctgtgct tagtcattgt ttgccacggt cgctggatgt tatatacttc ttgctcaaca 1560  
 agatatgtta tagaagtata ccgtgcttat ctgccctgta cgcattgcaa cggcagccct 1620  
 accacataat gcgaatggag ggcaggccat acctgtctgt acgccagcct gttcccatat 1680  
 gtccttgtaa aagtattcaa gtgcattttg gattggctct cagacccgcg catgactccc 1740  
 gccgtcctat tgtatcttgg gttcgccaag ctgatcagca tagcaagtat gatattgtac 1800  
 acataactat gcgggagtct tggctttttac gcagcgccta aatggcgcag tgtggttgtg 1860  
 agatattcaa tctgatcttc ttaggattca attatccaag gataagc 1907

<210> 4948  
 <211> 5006  
 <212> DNA  
 <213> Aspergillus nidulans  
 <223> unsure at all n locations  
 <400> 4948

aaaaacttat gaataccccc ggggcagctc gtagcgaaga ttgtcgcata tgtcagggcg 60  
 tctcttttgt cggagcgcgc atcgttaaag gggccatttt gaagcggtcg gggctctccag 120  
 acggccatct ggtactgttt atcggttca aagttgacaa atttatgcag cagatacttc 180  
 aagctcttct tcgggtagtt gagagcacag gctgcatgat acgtgtcgaa catcccaaca 240  
 acatagagcc caaggtcgcg ttgcagccag ataatatcca tgctcgatcc gtggaagagt 300  
 ttcagtatgt tagggctctgc aaacacctcg ttcagcattt gcagctcctc cctccatggc 360  
 ttgagcgtat ccaccacca gtccttctcg cgggtactga tctgcatcag cgatacaaga 420  
 ccgtgataag aatgtacatc atgatgttcc aaatcaatcg cgatctcgcg cgcagatttc 480  
 agttccgccca gcattctttt cacaccgtcc aaagtatcca cgaaagtcgc agctgtcgtc 540  
 tcaaagggca gatagtcaat cgggggcgat acggtataga cggagcttgg gtactttgca 600  
 gcacggatct ccgtctcgta cggattacga gaaccgtgag gcgcgtcaat tgaagggtgc 660  
 agcgactgct ccaacggctc tatagcatgc ggtttcgtct tcagcagagg tctgaaaggc 720  
 gacgtatccg taggatcgac ttgatgttca aattggagct gaggcttagg gatTTTTgac 780  
 gggccatagt cgtagattgt cgggaaattc tgcgccctcc tcatattcga agccgcagca 840  
 cccctcgctt ctgcatcctt atcctgcgac ggactcaatt tcttgataac gcctgtgaat 900

tcatccaaac acgcgtccgc tttttctaaa agcgcattcta tcacatccac aatgcccctc 960  
 caattgtcct caatcgaatc ctctgtccgag agtaccggcg cggaaatata ggtgccagca 1020  
 gtagctgcct ttagaagcga cgatgtcagc gacaacaatc ggccgctttc ctctgtctagc 1080  
 ccctcagaga catttgcgct tgaagttcgg tggaagttga gatcgttcac ggccagcgct 1140  
 ccgaccgtac gggtaacatc catgaggagc gtttgacccc gttcttgga cggtgcaaac 1200  
 ccagtggaag gatccatatt gatggatcct gctgaatacc ggtttctcga ataaagtccg 1260  
 agaaaccaag ctctggtgag agttaagttt tgtcaaagaa aaggtaagcg gagttgagaa 1320  
 atttctctgc aatagcttac cgcccttctt ttgaagcgga tctccgtaac tgccacaaga 1380  
 ttctgtctggc ctttgctaaa actcactgac gttcgttcct cttaactagc tttcaatatc 1440  
 gcctttactt gccatttagc atttttattc tattcaagcc aatatggcag cttctatagc 1500  
 gcccgagtgc aacgatctta aagagtgtgc agttacagtc gccacatta tgaaagacaa 1560  
 agctaactcg tgatctgccc aggaaatatg acacttgctt tctgaagtgg tacagcgaga 1620  
 gtatgtcca ttctctctaa tatcactatt agaagcccaa attaagacct acagagtacc 1680  
 tccgtggcaa cacaggctct actgaatgcg aagaactctt cgccaagtac aagtcctgtt 1740  
 tgactgtatg tttgccaccc aacctggatt ttgcgcagtg gtcttgga aacaaaacta 1800  
 tgaaactgac ttattatcat acacagaaaa cgctcaagga acgaggcatt gatacaatgc 1860  
 tagaagaagc gcggaagaac acaccggaga cagacgtga gtacaatcgg cggtcatgac 1920  
 accaaccgag agcctcgcca aaatgccggc gagtctaaca atgtagctgg tattccaagc 1980  
 cggccttgaa ccatcttgag cttcttgtgt cctgctctat gcctcctatc actcgatttt 2040  
 cactccgctc actaaacaag acattgacgg acctctttca cccacttgta tacctatttt 2100  
 tacgactgtg tacgatatat atttgcattc aatcgaggcg ctcggtatcg gtgatatgat 2160  
 attcaagcat tttaggaaga catgctcagt tcttagtcat ctctaaaacg atctacctgc 2220  
 atctctttat acagaacccg gcagccaatt ccgagggtgt aggctagtta gaaatggggc 2280  
 gtcgtccaaa cctaagaatg tctttcaagt ataccacag acgacacttc ctactcgcc 2340  
 tccgggacct ctatcgctg cgcttgcgca cggcttattt cgctaattgc ttccgccgct 2400  
 gcctaagcat gtacgaatac atcatgatag aacctgactt gtcagctgga tagaagacta 2460  
 caatcataac aaatacataa caatatgtcc actcaccagg tgcatacaac ccaagacaga 2520

agtaaaagat ccctgctaca agagaactac tcgtaactcc agcagcgcgg tacatcaacc 2580  
 accactcggc agaaattcca atcggatata gtacaataaa cagggagtag ctgggacccat 2640  
 gttagtggat cgtggccgtg atgattaggg tgacaagggt catgtacata cctcaaccac 2700  
 ctcaacacgg aaggcacatg gagcccagcc aacaaaacca caaagtagga atacctcact 2760  
 gcgtccgcta cagcccacgc gaagagcata gctgcgtatg cccgcgacga cgccgtcaca 2820  
 gccggaaagc cgtagttaat cgcccagact tgcacactcc gcgcgaaaat ctgcgtgaat 2880  
 gttgtgaaca cgggagagcg agttaggcct gtgatttgcg ttagttatgc atggatctcc 2940  
 gacgtcaagc ttcgctcctgt ttcaatcaag gattggattt taagcgcacc gatcgacga 3000  
 tgtaatatct ccgcaacggc taatgtctgt gtccagcgga cttgcggctc gaggactgtg 3060  
 tagaggggtg gtagggagat gacatcgagg ttttgggagt aggctcttag gacggtgatg 3120  
 aggatgcgaa gccacaggag cgcgttaatg gagttataga ggaggagata tattctagca 3180  
 gtggggggact gagaggccat ttttatcaat ttgtagaagt acaatgaccg tctaagtga 3240  
 acctggagat gctgctcttg agatgataga ttttaattgt tagcgtcgaa attgaacctc 3300  
 ggctttttgc acctttcctc ttgtctcctc ccagtacatc tgcaggagaa tgaaacatga 3360  
 ggtttgacag gaatcgatcg gtacatgttg catcacccta gccctaagtt gatatacaaa 3420  
 ctgacctgta ttatacgtag ctatatattc cgtagggttc gcaggcggtg aaggcttagc 3480  
 ctgcgcgagc cctgcacaaa attatagccg actgctattg gtttgaataa agcctcta 3540  
 aataataaaa agccatttac atatatatat atatataaag aaaaaagaaa agtcaggaca 3600  
 gggcatatcc gctttcgccg acaattaatg acaagggtga agaaaaagag tgaaatgcta 3660  
 attctgccag ctaatatctg atgattgcgg gttcgggcaa acctgtatgt ataaccaatg 3720  
 tcgagcaaaa aaggggagaa gcatagactg ggaatcccct aagacttgac cgattgtctc 3780  
 atgggtttat gcgacgggtg ttataattgt agtagaattt actaggtaga tatattgcct 3840  
 tacagccatg atgagctcgt gttttatcac ctacttcgcc ccgctctgga ttctctcaga 3900  
 aatttactat attatacaag agagttaggt aaccagactc atcagagata cccttctgcc 3960  
 cggatatatc ctgatcttgc ccgcagccac agcgccgtgt gtttgagcaa gcccataatg 4020  
 cgtcaagcag tgagcaatgc caaattgggt cctggggccc tcccccatag tggacctggc 4080  
 ttggccccag gtggaggttg tagatcgaga cagaaaacga ggtcctagtt aaggtgataa 4140

agtgggtgaca aatcagacag acaaatagca gaacagagag atattacgcc atcagcaaca 4200  
 cgctttttgac tattgcaact gactcgagat tgtattgtaa gcccctctc tacccttccg 4260  
 ggaggcactg ctggcgagac ccaatatgtg atcaaaagca acgcaccggt atctattcgg 4320  
 cacacgacga gctcccaatc cggtttccca aagttcaata aaacgtcaga cgaaaatgca 4380  
 agcataatct gtgccccgga tcgacaagcc tggattgaat tcgggagact tagccgtcct 4440  
 tatcgggatg acctcgtatt tgcaattgca tgattcccggt ttaggtttct gtgtaataaa 4500  
 aaatggcggg gtagcggaga aggcgatcac ggctattgaa gcgattaagc tcgtaccctt 4560  
 gagcgcaactg acaacagcta cgaggactga ggtggatgct cttattctta cgccgctaaa 4620  
 aagaagccag aaggacggtg agcctggcta tctaataatca tcacggtgtg ggactgtgga 4680  
 tttgatgacg gataatcctc atttgcaggt tcttatccac gggttcagcg taaatcatgg 4740  
 tccatatacct tgtccattgc ctggtgctgc cgcgctgcc aagttcttcgc agaggatcgc 4800  
 ggtgccactt gtactaagta ttgcgtagag tctgtggtat cggaattcaa tactgaaatg 4860  
 acctcagtcg tggtagaaag tcaatatcga gaacctgttc ggaagaatac tcgcctaatt 4920  
 taggattccg aggtcganc agcaccgatc cactcggcat ggtagggtct gctgacttct 4980  
 gaaccgatct tccgctgacc tgtggc 5006

<210> 4949  
 <211> 2008  
 <212> DNA  
 <213> Aspergillus nidulans  
 <400> 4949

acccgagtc aacagcgctg gcccggtggt cagcagttcg gtggcggtgc attgggtgga 60  
 gcgatcaagg cataaataaa ataaggtttt ttataatggc atgtctcttc ctttttctct 120  
 ttactcacgg tctaattgtc ttactggaat atgacacgta tgatcattcc ttgttcttac 180  
 gtatgatgtc tattagagga gttatttcaa tctctcattt cttcacctgt aactagtgca 240  
 agtgagcttg gctagagtat taagggtcga taggtatacc gaagttccat gcttgcagag 300  
 atgtagcagc ataatgatag acggtgaatc cagccccaac cactatcgca ccatcgaagt 360  
 ggctattgtc acttgtagtc ctcgacaatt ggttgaagtt tgatttaaaa tacctggctg 420  
 ctgcacggag ccccaaaagc ccacatcggt aggctgaatg atggtactac ggcgaccag 480

aatagtgaat tacgtgccgt aacatggttt atcatctgcc gcgaggattg aagcagttgt 540  
cagaagaaaa gctagatact ttcttgaggc gatcagcagc gtcgccgtcc gaaacgaggt 600  
tctgggggtga ccagtattcc tctccgcgg actggagatc cacccaaaca agaccatctg 660  
ctagaagatc atccataacg gtttttgccg gaccttttcc cagtttagat tgatttgaag 720  
cattgaaacg ctgacgtagc ctaagacctg tatgacctcg agcacagtcg cttggtctgt 780  
attcagctct ttcggaattg aacggatata ttgtttgctg ccgacgagga tggtagagaa 840  
gccagacccc agcggctcga gtgccttgac tgcacggaga atgtcgtcgc tggaatgcga 900  
aagtcatgat tagttgatct gtcataaggt gcctgggact cggctgcata ctcagtaacc 960  
tcaagtccac tgctatcgc cctaccttcc ccgacacgct tccggcactc ctcgacacca 1020  
atcaagcccc cgttctccct tcgagtcttg cggcaaagct cgacaacccg aacagcaacc 1080  
tcaaaataga agtcattcat gtcaccgccc ataactctgtg tccaaaagct ggagccgtca 1140  
cccaaggcct tgcgtccgtt cttgcctttg acgttgctag ctgcgagcgg gtcgacgccg 1200  
atggcattgc acatacgagc aaactccgcg cggaaggtag gatttgattt gattgttgag 1260  
ctatgttcta gcgcgaagtt gtgaaggagg gtctggaata cggagagctg ggtctgcagc 1320  
gaggaagtgt gtgtagaccg tagatttgcg ccatggttgg cataagattg cgtggccttg 1380  
gtacggttcg cgaaggcgcc gagcccaacg ccccgacgag aggccataat ctgttgctgg 1440  
aggatagtcg atgatagaga gctgggttgc gaggtcggag ggacactaac gtcttgctgg 1500  
cgatactgac cgaggcttat cggtcgccat cagctgataa gagtagccct aaagggtgata 1560  
agggcactga atcctgattg ggaataaggc gtgttagtgc ggctttaacc acagaaggct 1620  
agtgcgtct cggcagccca caacgacttc ttcactgaa atttcgcttt ctcgaattct 1680  
ctccatcgac agctttcgcc aaccgcccac ctcgcgaact caacggaccg tcgcaatggc 1740  
ctcgactgct acgtatgttg catttgaaca cccaattacc ggctgatcgt ccaatgagcc 1800  
tgtaagggtc gggttatagt cgtccttctc gctggagatg ctccgaccag aaatggccgg 1860  
gaggtaccag ctcgattttt cccgcgaccc tgccttacc ttgcgcttgc atcaatggaa 1920  
acgttgaggc cggctcaatg gtttgagaga ggggatgggg tggtgaggtt gaaagcgcaa 1980  
ccgcttctcc ttgaaaacga ttgttgag 2008

<210> 4950  
 <211> 8069  
 <212> DNA  
 <213> *Aspergillus nidulans*  
  
 <223> unsure at all n locations  
 <400> 4950

```

taacatttaa cagcctgata tcttaccgca tcgccattgt aaacgtcttc gtctccgccg 60
gtctaatacta catttacctc acgaaagaaa agaacttccc gaactgggct cccggcatcc 120
gcgcaaccct ccctgtaaca gttttctttt gcctgtcaaa catctacctc gtgggtggcgc 180
catatatccc gccttccgcc ggccaaagcg tctacgaaga gctcccttat tacctgcact 240
gcgttggtgc attgggaatc tttgcgcttg gctagtgtta ttatcttggt tgggcagttg 300
catgccgcgc ctgcggcgggt acgtccttgt taaagagaca gtcgtcgatg ccgatgggtg 360
gagtaggagt gtttttacga agatgcctgt tgcaagggtg aaggacgagg gggtgcattt 420
ctagtcgttg gtttctcttc tctctcatcc ccaacagcga gacggatggg gtctgtactg 480
tagataattg catttgatat attctccgct acggagtaac gagtctagca catttggcat 540
cttgcatac ggagcaaagc aagggttaata catgaacttc ataattcaat tcgcattgtc 600
ttatcccgat attgtagctc gatatggcat gacgtgtctt ttgtacctga cttttctccc 660
tactgctaac tggacactag ccaaacagcc aacaaacttg catctacgaa gccctcgcga 720
agagcatact atgaatagat tctccagac ctttcagcg aaagaggagg cactaagaaa 780
gaaggtgatt gttccaacca tctatggaag cccaccagc aatcaatccc tcaaagctct 840
tcaagagctt gagggatcgt catagactcc tcaaaccggc tgttttgtc ttgcaaactt 900
actctgtcta gtaaactagc cagcctacat gcgtctgccg caaagaatat gtacttacgg 960
cattgctgta gaaagctgcg tgatgaatga tatgtatgta tggattgtgg aagagtttgc 1020
gcgggcgatt gaaaaaagcg gtagccgttc cgcggtctga cacgtgatgc gccacttaga 1080
tctaactact tttggtctag gttcgagcat ttttgtaatt tatgcctcag gtttccaagg 1140
tggcatatca ggtcttagcg tctggataac tgctaagtt gcacttggac agttaaacat 1200
aggaagcgaa gcagaaacaa acaacgattc aaaatccgta accggagctc aactgaatat 1260
ctcacaaccc attagatctc cgtcagaagc ttcttaagag cttagatcac gggcgccact 1320
attatgtaga ccgtccattc tcagtatagt ctgtttttga ccggtgacaa agtgggcact 1380
  
```

gagatatagg tacgggtcta tgtattgttt gttaagttgg taaataagag aatatagcag 1440  
cgtattgatc aacaactccc aaaagatcct cttttaagac ccataaccg agatctacgt 1500  
taccgcgaat tcgagaacgc tggctggaac cgtatccgta tgccatgcgc caacatcttc 1560  
acctccattc catatgccgg cgggcgagaa gaatagcgga taagcgactc gtcaacctaa 1620  
tatagccagg atttctttgg gcggttggtg gctgcaagag gatggtttga cgtcttcgga 1680  
actcggacgt gagtcgatca ttgatgcccc ataatgttga ttgaactccc agtggttggtt 1740  
ttgggtgtgg agggctcaga accgagggac gaaggttgcg aagtattgtc ctccagaggg 1800  
atggggaaac catgcggtga atggttggtt ttgcgtttgt tgtcccgga ccatggcgat 1860  
aataggcatg atggtagttg tgatggcggg gcatgagcga acgcttatca atgtcaccgc 1920  
aaaccttcta tcatccagta gaagccagac tgggggccaa tcgaccgca tgttcctgaa 1980  
aaatagtgag gcagtcgaaa tgtcaccctt ccgccgcccc taagcccaag gctaatactt 2040  
gcgcttaggc tagcaagtga ccagggctag cgattctcag ctcgtaacga cactgggta 2100  
gaggagaagg caacattaga cgatcctcaa tcaagaactc taccaattca gtcacctgc 2160  
accgcaaata gaacctttgt gtagaggcta cagccgcgac aaccaacaac aatctcgccc 2220  
gagtccgcct cctctccaa atcgctctcg gaaagtgaaa accctcgctc atcaccacac 2280  
ctgcacgcca tgtaccacat agcttcgtca ccgcctcat cacaatccag atcttcaga 2340  
tcaacaacct ccagccctgt gtgaaagacc gtaccgttcc cgttcttacc tcccgcacca 2400  
ttcaccgggt ttctatctag tcggagtacg cgatcgtatt cggcacgctg gacaggatca 2460  
gagaggtct tatatgcggt tgtaatggcg tcgattgtaa tcttttggtt tgaagggtgt 2520  
tgcgcggggc cgtgattgga tgaggggagg ttttcttttg caacagcgac ggctttgtcc 2580  
gggtggtgtt tcagcagcgc tttgtgatac gcaattttca gctgctgttt tgagaggccg 2640  
gtgcttggga atgggaggtt gagtatctcg tagaatgagg gggtcgttgt ggggtgcagct 2700  
gaagtttggt tcattttttc tggcgcttat cgctctaga cgtcaaagct ggctgtttca 2760  
agggccgcaa tcagaagaat gttgaatcac agtcctatta gagggatcaa ccaaatagaa 2820  
agaagccact tgagccagta tgggtggaagc gggaggttgt cgttactgga gagaaatatt 2880  
tgcggggaaa tttttggagt gcggaattgg atggaggtca ccaccgcat tgacgtagca 2940  
gaccaacaac tgtcatttac tacgcagaac gcctatgatt agaggaatac gggaatgtat 3000

ttctgcttcg agtgatcctc gatcaccgct gctatgcggt ttgttaggtg ggaacgggaa 3060  
 actcttcgtg tattgcacct ctactcaaga atctatccga tagtgggtaca atctagtaat 3120  
 agcaaactcg cagagatagc cagaaacatc ccaatatgac gagtggcaga aaaaagtcgg 3180  
 atatcttgac atagaaaagc agaaaagggg gtatgcgaaa gaaccccagc tgaacacact 3240  
 aacaaataat cctgtcgctg agtagaagca ccttactcag acctcttgaa gacatatcgg 3300  
 tctcaacct tgctgttgaa aggcacacca agctcaagca gcttgacaaa gacctcagag 3360  
 aactccttga agaaggcgct gctgtcctta gcataccgct caacatgctt cctgaacccc 3420  
 ttgtcctgga caagtgccag gtcagtcggg aacatcatca gtgtcttgggt tgtgttatca 3480  
 gtgaactgct tggggccggt ccacttacgc ggctgccact tctcctcaac caacaggcgg 3540  
 aaaaactcgt ttgtgaagac ggtagggctg aagttccagg gtccatcgaa accagagcgg 3600  
 tccgtgtgag cacgaccaag agcgtgtgca ccgatcaaag caaccatctc gcggtcatcg 3660  
 aaacccatgc gtccgaaaat ggcacggatg tggctcttgg tcttggtcgc gtcaggaaga 3720  
 cgggccgtca ggtgtgcagc cagaaacgtc cttgtcctgg cggccagggc gccaggggat 3780  
 gtctgggccc ccgagttcct ggatcgcgca ggctcccga agtgtccaca agtcggagta 3840  
 ggtgatccag gggaatttgg ccttgatggg ctcgaggaag tcacgggcgt acttgagacc 3900  
 ggcgttggcg ccgtggtcag actcgggggc gaaacgcatg gtcgcgccgt tgctgccacc 3960  
 agtaccggtt tctgcgtcgt aggtgccgct tgcgtgccag gctagacgga caaggacct 4020  
 gagagtcggg acattagttg gagagcagac acaagcacga gaccgagaag cttacaggtc 4080  
 catagctgcc atcatcgtag tcggtttcgt tggcgagacg ctcggaatg gcattataca 4140  
 cttcttggtg gtcttctttt gtaggagtga agaccttgggt gctagcgcca acatcgccgc 4200  
 cctggaggta gaagtatgca ccggcaccac ctgcgagagc aacaccggcc cacaggaggg 4260  
 tgtagaaga ctccccggag ctgcctcgg aagagtatcc acggcgagaa gcaacgcgga 4320  
 ggccttgagt aggaagagca aaccgggagc tgcggacagc tggcttgagg gaagagcgca 4380  
 agaaggcgcg tgatgcggat cgagcagcgg aagccatgat ggatgtggac aagacaaggg 4440  
 cagaatataa taaaggaaga aagggacaag tagagggaga tggaggagga gaagaggata 4500  
 agaggagaga cgatcgggat gagcaggaag gacagggata caaataaccc aagcttataa 4560  
 ggacaaccga cccaggaac ttagaatgct atcgaacacg acgtcagtg ctcaccaatc 4620

aggggggtca catctgaggg atccggaccc agaccttcga attgagtcag cagcagatgt 4680  
 ctttaagattg gctccaaaga aagctctccg cattatttgt ctttgccgat gttcagggcc 4740  
 gctgcctgca ggggggtgggc gacacacaaa gagggccaac atgctgtggca atatcagggcc 4800  
 ataggcggtc gaccatgggt gtctacattg tggcggcatt actcatacag aggatcgaaa 4860  
 caatctcatt agatgtgaat tcagaatgtt ttccatgatg attaatagag gtgttcttcg 4920  
 actctgtagt acggtatctg tactctgacg ttgccgaggt gttggacgga tggggtcttc 4980  
 tcaattatta ttaacagcgc acttctcttt ggtcagcggg aaattccgag tgtactccgc 5040  
 agtcgatctt attcatcagg ctgctctagc tctcatcaga atagctgagc ccatccatca 5100  
 taaaccattg aacgctttat ccgctagaag cgcaagaga ggttggtgca gctgtggtat 5160  
 aacactagtt tctacaggcc ttctacaggg aaatactgat acatccatcg acgattacaa 5220  
 aagactagaa aatgtatgag accaatacca tttgtgctaa ctgaatgttc gtcgtaaaaa 5280  
 tagtcctgct gttcaacaat gacaaacacc aggggtggagt agacgcagtc ctgtaaaaa 5340  
 ctgtttggtt ttgatcttcc actgaacgaa cttgaaaaaa agtacgcctc tatgccactg 5400  
 tcaggctaga cgctcactgt gtggttcgag ctgagctctg ctcatataac tgagaataaa 5460  
 gggtttgata cgccgcctc ccatcatcaa gggtgcgatc cgctcaagg tgcgaaacgc 5520  
 aaagtcgttg acttttgaga aggtaagatg gaggggaagg agaaagaaaa cagaatcgac 5580  
 tgttagcgtg cgctcacgtg actgatttct tcgcttacca aggtcatgtg ctgagctagt 5640  
 ccgtgggaca gttcggtagc attagagctt gcactacttt accttgcgag atatgtagtt 5700  
 attgacgcct gattgtagag acatactctg agcactcaat tacgattaaa gctttacacc 5760  
 tggctcggta gactctctac atcaatagtc gccatctcga tgctttggag tgaacatttc 5820  
 tggagactct gtccgtactt tgactagcta cagtcaggct cagaggacac tggactctcg 5880  
 ttgctcggtg ttatggagtc taccacatta tgattgcatt caggtagcaa aaccgcgtac 5940  
 gtcgaaactg acagctttga caataacagc ttcacagtgc cactcttaag tacagttata 6000  
 tggagccgct tgaggctaatt attgaggcct aaggcataca cacgtgatcc accgacgcta 6060  
 taacttggcc atcagaattc gcacgcggtc ctttcctttt ctcttcaca cttttcatac 6120  
 ctcagaacgc ataataacc tccaattcct gtaactgttt aaggttatac ccataggatg 6180  
 gtaggtcata ttggcgaacg agattaagct ttgcacgagc atcttaaggc tccgctgtcg 6240

tgctggggttt cttcagaagc ttcagtgtg tggtggctgg agtcacctgc tgctcataca 6300  
 tctttttcga actcgaaaat catcgtagtc attctggaac cttinnaacag agctcggact 6360  
 agcggattgt ggtgtgcgtc tgctacctgg gtttactgag tacatcaggt acgggcctcg 6420  
 ctgaagtctg aaggcatgtc ttccagggtta aacaagggga tacaccagac gcttgaccaa 6480  
 gaccagacgc tccctggctg agcccagacc aagccgtaac caccttaca gaacgaaaat 6540  
 aaaggttctg aaggggagag tgacatggaa tggccgaagt cgtatgagct aagcccttcc 6600  
 gtatatattat tgggcctata tctgttcct tgagtggcca aaaaaatata tgcgacgaac 6660  
 gtgtcggaat gtctgactgg gccaatcgt tggatttacc atagcagctt accaagacat 6720  
 gcaatgtagc ctgacaagac tgacatatgt gagctgagga atagatgaag aaaatgctcg 6780  
 taaactcagc taaggcgac cttgtgtc gtaataacat tgagggccat ggccggccgg 6840  
 cggtttcccc acctccacac cttacctgtt gcttctcact ttctcctttt actgccactc 6900  
 ttccaacttc tcttctatca tcaacttcga ttattcccaa tagacttatg acagcacatt 6960  
 ctttggtaaa tatgtgtgc ttatccgtc gtaattctg tacattccct tatcccgcca 7020  
 ctatctgata cctctggcct gcccgagcca ccaggccgag catctcctat ccttaaataa 7080  
 agctctccat aattcgacat ggtttctggt atcagtaaac gacagcagct gcgcaatgag 7140  
 cgtgctctac aagatctcat ccggtcgggt cccggcaatg accggtgtgc cgactgctcg 7200  
 gccatgaatc caggtatgat caactctatc gcagcatatt gtgccctggc tgactgattg 7260  
 cctcgtttta acaggatggg ccagttggaa tgtatgtact tgatcgattc caagccgac 7320  
 gtccgaacaa ggcagcta at gggggcgat atagataggc atattcctat gcatgcgatg 7380  
 tgcagccttg cacaggaaga tgggaacgca catttcgaag gtcaaactgt tgagtatgga 7440  
 cagctggggc tcagatcaag tcgatgtgag ccacccggtc cgaccgcaca gacagaatca 7500  
 gacggctaac gagtagactc gctagaacat gaaatcgct ggaaacatcc tcgtgaacaa 7560  
 gatctataac cccatgaaca tccaaccgcc cgtccctact gatatcgatg aatgcgatgc 7620  
 atgcattgtg cggctcattc ggcaaaaata ccatacaagg acattggaag atgggaagcc 7680  
 aaagccacca agccgacagg accctagcta tacacgatcg ccggagggtt caccttcgcc 7740  
 gttgcctccg aaaccttacc ggccgtttgg gttcggctt cggctcgcct cgtctgctgt 7800  
 gaacctcaac agccattctg ctggcagcca tggcccagac tcgcctgtta gcgattcgag 7860

tcgttcgtca tttgagtcca agctcgccaa gctgagggat atgggattta cgaatgagcg 7920  
 caggaatacc accgcccttc gggaactgga tgggaacttt gacatgacag tggagacact 7980  
 cangaggctt ggagaaggat ggcaacacac atgttcggac gcatctgcat nggcgcataa 8040  
 ctaatccttc gatcagtgat gccaacacc 8069

<210> 4951  
 <211> 5091  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <223> unsure at all n locations  
 <400> 4951

atgattcacg gggcgccctcg ggtctcaaag acggccaaca atgcccggcg gaagcctctg 60  
 cccaagctca tgaatggtct tgccatctca cccccctaat agtatcggac gatggttggt 120  
 ggagcatgtc gtcccggcat atctttatgg gatcctttca cgctgctacg ttacctatca 180  
 gacacttcca aaccaattgc gggctctggtg ctccgcgcgc tgccttacgg atacaagatc 240  
 ttgtgtctct gactggtggc ttggtcggcg tgaaacacct cccaccctgt tttcgcctac 300  
 cgcgcatct tctgcattga ttgcagagga tctgacgcca ttaccacata aaagttctta 360  
 gactcgcggg cgggacattt tcgttttctt tttgactacg tctactcgtt cttgggctgg 420  
 cagcagagac ttgcagcctc gcagcggacg ccgtgcggcc tcaagctcag tgatcgacat 480  
 ctgcagcctg tgggtctcatg agcttttgcc atgactcgct cccgctaaat ccatgcacac 540  
 ttgcagtccc aatccttgta cagttattgg cacatacatg catcatagac atattaatgg 600  
 cccgttgacg caccgggatt gaggtttatt ggaggaaggc agagtatcta gttatttggg 660  
 tgatggatct gctcgatgtc tatttctata cctcgcatac atcttctgta tgtgctgaga 720  
 cggtaatgca gcttctggtc cacgttgatg atcacatata ttgcaagcgt ggcgtagctc 780  
 agttcatgga aggagctgcc ctgtctcacc cagctgagcc acagggttca gtgtgtagtc 840  
 agcatgttcc tgaagccgtg gacgaagccg accgacaatt atgtgggtgg caccacgtgg 900  
 atatggatta tggcgtggtc ttatacctca agtaaggact ggccgcttta actctagaca 960  
 gaacctgcgt gtgtggtatt atgttgattg taaggttctg tactgtttcg ttacattcat 1020  
 tgtttcgtaa agcaacctcc tctcacaaca ttgggtccat cccgtgtctc gattcttcag 1080  
 cagcaacact accgtccgtc cagggtccca tttatccaat ttatcctgat cttccttccc 1140

ctttcctgac tccctctgta ttagtataga acgtgcgctc ctctgccctg attggcgga 1200  
 taattgggtc cggggcgagg cgggggaaat tggaccgtcg gggccagaaa gtccctccac 1260  
 tgagtccact ctccacact tgcattggccc agcagctgcc gcctctcacc tccccggatc 1320  
 catctctcca tccagacctg cccagcatca cactgacta cgactactga gagccgactc 1380  
 gcgggactga gaaatgcccc tccccgtgcc ctctgggtgt cctgctgcc a gtctccatca 1440  
 ctcttcgccc ttgccatcaa tctcatctcg gactaatccc ggtcggcgcg ctttcttacc 1500  
 ctgaccgctc ccattcctga gactgggtta ttattactta actgggtact gctgcaagtc 1560  
 tgtttcccgt tctttatata ctcttcgctt ttgcctacct ggccgctctc tgtactgact 1620  
 ctggaaggaa atcggtttcc gttgatcacc gatgcgactc gcttcgggtc ccaaattacc 1680  
 cgtcctctta aatcgtcgcg ttactgattc ccgtatctga cattgacgtc tccccgtggc 1740  
 ccctacgacc tcttattacc ccccgatttg gcgaccaag tatgccgtga aagatgatgc 1800  
 aaaccgcccgt ccaccatcaa cctgtggcta ccaccctcag agccgattca ccggtttccg 1860  
 tggcctcgac tagtcttaag gggacttcag cgtccgctgc tcttcccttt cctcaggcgc 1920  
 ttccgcagga gccatctcgg acggtcgctc ctgtatacgg acccgggcag gatgccatcg 1980  
 tgcagggtgt tgcggatacc ttgggaaagc catggacgac agagacgtcg ctgtccacat 2040  
 tagggcgggg aagtagtgcg gttgttgttg ggatccgggc cacggatctc ccgggaagtc 2100  
 tggacgggtg cgacaagtcg gcatgcatgc tggatcaatc cactgtgtg gatgacgggt 2160  
 ccttcctga ggaagggctg acggaactgt gcgactacga gttcttatat tcgttgcgga 2220  
 gtccattctt tcgcccggac ctacgcgggt tctctcatt aattctggga cagaccggc 2280  
 cacatgagga tctgaagacg aagaaccgaa cgaattttat ctctaccacg tccccgatg 2340  
 tacatgcggc gctgccgaac ttggatattc tctcgggtggg ctctgatgcc gttgagatcc 2400  
 gcgtggattt gctggtagac cctgaccgc tgctcagga tcaggggtat cccgggatac 2460  
 cgagcttgcg atatgtcggg cagcagttga tgctgttgcg gcagcataca gaattgccga 2520  
 ttatatttac gacacgatng cacgaagaga atggaaagt ttctatggat aaccctgcgc 2580  
 tattctaccg gtatccccgg agggcgattc aatgggtgt agagtatacc gacgtggaac 2640  
 tgtggctgcc agagaatatt cggcgcaagc tggcaaaagt caaaggaaac agcgtgatca 2700  
 tgtcggcttt ccacgacttt tcaggcgagt gaaagtggac ctgcccag gcaccgcgga 2760

tctttgaaga aagcgccaag tacgcggaca ttgtcaagat gatcgcgatg gtggatagcg 2820  
tggaggcaaa ctatgagctt gagtactttc gctccgcgat taagcagacg catgggacat 2880  
atccgctggt atcggccgctc aatatgggccc agctaggaca gctatcgctg gcactaaaca 2940  
cgggtgttctc gcctattaca catccgctgc ttcctatgat tgcagcgccg ggccagttga 3000  
ccgcagcgga gattaatgaa gcgctgcata tcatgggcca gctgccgaag cgggatttgt 3060  
acgcgatcgg ctcggtccga ggcagcggcc agtcgatgtt catggagaag tgcttcaacg 3120  
agcttagcct accgcacact ttgacctcta tggaccgagg gcccgccggc tcgctcgaac 3180  
gggtattctc acagcccagt ttcggggggc cggcattaca cccaccactg agcagcacgt 3240  
cacatctccc cgccatcagc gacgcagccc gcgcaatcgg tctggtagac acgattgtgg 3300  
ttacgagccc aggatccctg gtcggcgaaa acgccacgtg gaaaggcatc cgcgcgaccc 3360  
tgaccgcga ctacgtccca tcggcatacc gcggccgagc ggccattatt ctggccgggt 3420  
ccgaaagcga agcgtcagcg agcattttcg cctacgcag tctcggcgtg ggcgccatct 3480  
ataccgtcgg cttccgggca acagggccgc tggccgaggg tctcagagccg tttacgtcga 3540  
tccagtctgt gaagctagta gaacagccgt ttgtgatagt ttcggcactg ccgcccgaga 3600  
aatcgctcct tgtgcaagcc gctgctgctg cactaccgga gtacggggcc ggcgctcgccg 3660  
ccgtccacta gggggaaagt gtacctgat cttaccaggg gcgagcgcac cggcgatcca 3720  
gtgagcgctg ccgagcggtc tggatggacc gcgtatggga ttgaggatgt gaatgcgtgg 3780  
acgaccgtcg agatgctgcg gctgctggtc ggacagaatg tgccgtttga ttttgtgcgg 3840  
atggcatcgt atagtctagt ttagttccgt cttcaattag ctcttcagct cttcagctat 3900  
tcagctatta agctatcaag ctattgatat cgagtgacaa tgcctatatt acagggtaga 3960  
tgactgaat atagtacagt ggacctgacg agtcctgggc ctgcccggac actggtccgt 4020  
tctgccttgg ggaaaagccc gagtaattag ccggcggagc tagcgcgcac attgcagagc 4080  
accccgatg cccgttgctt aggactggat gccaccatcc ccgcatcgtt tgcaagtccg 4140  
gtgttagccc aatttagcgt ctttggctag tctgcttctg cttagtcgag accattcgac 4200  
ctggacctgg atcatttgat gccatcccc gttgtgggtg agtccgcgag tcgatgctgg 4260  
ggtcgggtcc ggggctccac gtttctaata taatggcacc ctccacttcc ttttcacat 4320  
ctccgctctg taccttgtcg attcttgtcc tatttcgtct ttatcctgtt caaaccgacc 4380

gtttctccagt gttatgtcgc gtccaacggt cagcatcgac cggctgacgc cgcgccgagt 4440  
cacagctgaa ccccgcgagt ctatgaactg caagtcctgc aggaaacgaa aggtgatttc 4500  
tttttctgtc cctattcgcc tcatcttat ctgggacagt gcggcggtta atgctcgggt 4560  
cttcagatc aaatgtaacc ggctccgtcc cagctgacgc gatagcaagg tcttccaatg 4620  
accctgcatt tacggtaata tccctctctt ctataaggcg tctattttct gtgtgaaccc 4680  
tgtaattga aatgtgaaga cgcgggtccct aaaaaacgag gccctaaaac agacgtcttg 4740  
aaagcgctgc tcaaacgggt cgacgggctg aagaaacggc tccaggatga tggaacacat 4800  
ccgctctcgc ctgcttcgcc agtgaagcca gatctccgc ttccttcaag tacttctatc 4860  
tcacatcctg cttegcattc gcatgctgcg cactcccatc cgcctccaca cccccaatcc 4920  
caccagcgg cggtcccgct cgcgcctcct gcggcgatg cccatgggca tccccatggg 4980  
cactcgcagg gccacggcca tcttcgccc ggtcgcgttc cggatgcaat actggacgcg 5040  
tactttgcac gactgcacgg gaaaccgttc tttatcttgg acgagacgtc g 5091

<210> 4952  
<211> 5232  
<212> DNA  
<213> Aspergillus nidulans

<400> 4952

ttcattcttt cgttttagt tccaccgaca tctgcaggta gaaacggctt ccttgcgtat 60  
gtgaagtcgt tgattcgggc ggctctagta tcggtgaacg aggccaggat cgcgggagac 120  
cgctcatgct tcaccatgaa ctgagttccc aacaatccag gtttgctctt gacgtgactt 180  
catgagttga gtatgccgtt ttaagtcctt cgatgacagt tggttaagcag ctgatctatt 240  
cccaggagca agcaccacgt gtgctctgtg tgctcctatc agattgacaa aagtaaagtc 300  
atgatggacg cgcaagcaat gaaggggcca agaaaggcca agtacgagtc cagatgccag 360  
cgtgagacat ctcaaagttg tagaatcatg ccaatcaaag gtgaccatta aggtttgaga 420  
gccccggcga agatgtgaag tcaatcgga taatgagcaa tgcgtccaac aaaggagggc 480  
tgggcaatgc attcgggagt acgaagcttt cataaaccca agccgctgat ccttctatgg 540  
cagcgtttca gagtttttgc aatttttgtc attcctttcc ttgggtatat aaagcccaga 600  
ttcaattgcc ccggggcctt ctgtctgtc catcgtcctc atatacaaat ctgcccagta 660

atcacagacc gggattcggg atcaagtact ccatattctc tgctaaggcc ctcgacttgg 720  
 gactctgtaa gacttcttta tctctttgtt ccttttgtcc cacaatggat gtgctgactc 780  
 gaataggttc tttcgtgggg gcccatatcg acacattctc gcccggcggc cagagcgata 840  
 ttttttatag catcacagct cccaggagca ctgtatctac cggctcgggg cctatcttct 900  
 ttcagattcg cgctccgacg actttgcaat gggtagctct tggtcagggg acacagatga 960  
 cgggtgccga catgatcgtg ctcggttgc aactgaaatg ccctagagtt tgcgaaaagg 1020  
 acagaaaaga agtgaacggg cttgtgctaa gcggtcaagt attttctcgt ttcagtgaat 1080  
 ctgaacgcag aaacatctgt aggcggcttc aaagcttcga tgggatcatt ccatcgttgt 1140  
 atactttctg ggaggatttc aagtatcttg aatgctgcgc acaatgcata aggaggcttt 1200  
 ttggtcaggt gaatggatcg atatggaata cgatgaagca tatgttcgtg ggaactgcag 1260  
 acgaagatta cggcatcgtc caaacctccg agttttcatt tcgtcgccag accgcaggca 1320  
 ataacgaacg acttgatcta ggctacaggc agctctggct gtacgcaatg cgcaactacc 1380  
 gtctcctgcc tcagccagcc aaggaagagg aagagctctt ggtcaagcca agtcgtcgcg 1440  
 aagctgatga ccgcgtcctt tacgaaatgg ctgaactggc ccgtcgcta gggttctggg 1500  
 cggatgagat ccgtgccttg ctagacggtt caccagatcg ccagatcgcg cgtgctgcgt 1560  
 tgctacaggc tcgcaagcct gatcaatttc agtatgatcc tgttcaactg gaagggcttg 1620  
 tcgaccgtgt tgttgcgtgt ttttcagcag ccattgaata tgttcgcaa ccccagagc 1680  
 ttcttgcgga cagtgaagtg tccacaagag cagcagctgg attgccacag gtgaaagccc 1740  
 acgcccagga tgctccacac ctgttccttg ataaagtcca taacgaagtc acgtcctcat 1800  
 ccgccacgtt gaccacgttc tttgttcgac gttgtgtata tttcgctttc ttcgggaaat 1860  
 gttcgctcag tggatctagg gttagagact tagggccagg tggccccca ggggatacac 1920  
 caggtctctt tgtcaatgag aacatgcaaa caacaggagc ttcctccact gttcctgaaa 1980  
 gtactgttgc tcagggttcg ggaaccggc cgactcatga agatattcca acccggcagc 2040  
 gcctcgaagg aactcagag ccgatactcg aagacggtgt cggcagatcc tctcagttag 2100  
 cgctttcggg tgaaaacacc ggatatgatg aaatggccga tgagggtaca agatcacact 2160  
 cgccagcgaa tcaagttgca acttctggaa ttcccgaag cctttcgctc ggtctccagc 2220  
 gggtaaagtc tgcagatgct tctagcctta atggcgagca attgggacat cagaatgcgg 2280

agcagacccc actttctcgt gattcagact ggccatcaac cccggcagaa agcaatctgg 2340  
 acacttcatt gggagagcaa cctcagccta tggattattc tccctccata tattctgtac 2400  
 gggagagtgg agccccgaat actggaactg gagcagaacg acagtattcc caagaacttg 2460  
 aaagagcaat ccaagaacga gagagactcg acaatgactg ggaacgagag agactagaac 2520  
 aagagctggg tctccccgacg tctagtagcg cacaggggtga gattgcgctt gtacaatgca 2580  
 gtaaggagga cgaggtaccc gagacgttac gacagacagt cgaacctccg gatggttctg 2640  
 atcaggagcc ctcttcatcc aacgtgggaa caaacgacca acaaaccaga gagccactca 2700  
 cccaaggaga tcggccggtg actctactcg atatccacaa ttctgcctta gtaccatcgg 2760  
 gaagacaagg aggtcagtcc cccacagcgg gcgccttcga ggattccccg gtggaagatc 2820  
 ggatggaact agttgagttc accttctggt cacttgagag aggacaatgg cgaagagcag 2880  
 accatctatg ggttgatcct gctgacacct tccgcgtaga gctgattgcc aagaaataga 2940  
 tatggaagga cttttcattg tatgatcgcc actggaatag cctcagccct gcgcagtgtt 3000  
 tccgtgcagc gaccgtggat ggcagcaatg ctatTTTTgt ggtgtcggag gatgaggagc 3060  
 ggagactcca agccgagggg agaagaatga aaatgactca aattcaggca atatcccaca 3120  
 gagccggttc ggacccccacg gaaccggaga ggcagttaaa gaggaaccgt ctctaagag 3180  
 tcctaagagc agtttacagc ctatgaatag caacttgaga gcatattgtg tgtgagataa 3240  
 actccttagg acattttgcg gcttatgagt atacgcggtg taggaaaatc ctcttaagag 3300  
 gagcgagaag acgtgcttga gacggaatcg gtcgtgagag acccatcaca aacagcccca 3360  
 cttcctaggg aattcatcac gtaccacga cgtgcttcag aaatggctcc caggattctt 3420  
 ttgtatgctt atgattggct gctaaagccc gtacataggg tacggagctg agttgaaacc 3480  
 attcattggg tgaacagcaa aagggtcgcg ggcttattgc cacggcattt ttcccccatg 3540  
 tcaaccccaa aacgggacgg cgcgagggaa acctagttc cacttattcg gaataggcat 3600  
 tcaacagata atcccatcat ctaaataagag ggtcagaaga cctttcgggtc tgtccctgag 3660  
 cccagataaa caaatggat gcgtcggatg atcctcaagg tcatcagtta aatgaactta 3720  
 ctgcccagag actacagtgc taccagggat gtgccatcgt tcgcctgcag aacttgaggt 3780  
 tcgagacgaa ccctctgcat ggaagcctgg acttcgatga acgcaagggt gagagacttc 3840  
 tcaactatTTT tgagattgaa ggttgcgga acctgcgcc ggaacataga gttgctgccc 3900

taattaaccg agggaccctg tcaaaagcga tttcgcagtc aggcatacaca tgggagtcgc 3960  
 tcttagaccc aacgatccaa ccacaacttc tctcgaatg agacgtgcgt ctgcctgtg 4020  
 tttatgggag acatcgtttg gaggccgcag aatctttcgg agagagaagc tggttagtgg 4080  
 atctatacct agacggtggg catttgttcg cacacatcga cgcagtacat aagctaacaa 4140  
 aatccctaga catcccttcg gaggtctcga tgcaactttg agctgagtcg accggaagcc 4200  
 tcaaattgac cgatggcgag atctatcgtg cgctcagact gtgccaactt tcacgaaata 4260  
 aagctcaaga aaacaaatgg tggtcgagac tcggttctga tgagcgacgt aaaaatattc 4320  
 gacgcttaca gcacaacgaa cgtctgttga acagtctgga caaactgttg ccattttag 4380  
 gactgtggaa accgctgagg acatcgaca ttgagaggat gcttgcctta aaataccag 4440  
 aggtatggta aactttatac aatttatttc acacgcttat tgagccagat attatgtcgt 4500  
 tacttgaacc tcatcacca aagctggtca cacatctgcg aggggcaggc tgcttcgtct 4560  
 gtggatccaa tgtctgtcca cctcgttgaa ggcctcatgc cccagagctc tcttagagac 4620  
 cggagccgca tcgctgaact cgtggactca ggcccattat ttgctctggt taccgaagtt 4680  
 agcgccagag aggtatgcg agaccgctg ctctctacaa cgggaagaat catatccctt 4740  
 catacgctcg ctcaggacac gttgtacctc gagaaacccg ctaaggcact ccgttgtctg 4800  
 tgtccaccaa aattcaaaga cagctttaga catacgatgc gtcgccaatg gagcatagtc 4860  
 gggagcgggc gaccattga gattcagaaa tccgagcatg tgtttgcaac aattgagccg 4920  
 actgcaaagc cattctccct ttgcatgatg cagctttggc ttttgactg aggcactttg 4980  
 tacatcagga gcgtcgtggg aaaaccggtc gacatgaatt tgagtgggtca actgaagacg 5040  
 tcagtctgag gaggttagca gogttggctg agcggttggg tttccaatca gagcagatca 5100  
 catccctccg gagtcagaac ctggaccaga atattccaaa aggcttcac gaagctttct 5160  
 caaaaaaaga attctataaa ttcgacgaag cccgagtaca atcgctgtca caccgactgc 5220  
 aaagatttct cg 5232

<210> 4953  
 <211> 1444  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 4953

gggcatcggc gaggccgctc tcagtaggct cgtagccctt atcggtgctg ttagtggtga 60  
 tgtggctgat atcagcagcg acacctgaaa tgagtccata ttagcccaat tgtccaaaaa 120  
 gagcagcttg gttgagctgt gacgaaccag gtccaccgcg gatatcgtag agagcaagct 180  
 cggaaacacg ggggttaagc ttgaggagca gggacagagg ctggccaatg ccgccactgg 240  
 caccgaggac agcaaccttg gaggcctaga tgtcgcgcaa gtgatcagtg tgctgttata 300  
 aacacgcctt cgatcttaca agagcaagag cagaagcacg agctgcgacc gagtccacgt 360  
 acctggctag cagaggccga gaaggccgcg ttctgaagga aaccgaaaga ttggcgagca 420  
 gcgaacatgg taactggcgc ctaaggacaa gaggtgatat atcaatggaa gatagaaaga 480  
 cgggggtaga cagagaggag agaaaagatg aggaagaaag ccgtcgacag atgagaggtg 540  
 ccggttgccc ggtgaagatt cggtttaaat cgggtcccgtt ccggtcacat ggcaacggaa 600  
 cagccagcta agctcgagca actgaagcta caaggcatgg tgctttctga gagcttttgt 660  
 ttttggtatg aagctgtggg ccaattggaa tatgtcgaat atagaacact cctgggtattt 720  
 tcgcaaatgc gcgataccag aaagctacct aggtaacatc gtaacccaaa acccaatgaa 780  
 cgccggcgct agtgaaaactg tcaagccagc cgacagccgc cagtacaagc aaatgctgta 840  
 gttacaattg attcaaagga aaggtaataa tgtgctatct caagaagtgc aatactgccc 900  
 agcagaataa gagaaagagt accacccttg ccagaaaaat ccatttgtcc tgcttcgctc 960  
 gtcgttccac ttttcgaatc gtctctccac tcaactctag ggtattcgca acactgtaga 1020  
 ggcgacgctg tgtgcccttc aatacttctc gctgctgtcc aagatcagca agtaccgcac 1080  
 ggcctcggtc aaggaattcg tcgatttgag agcttgattt tgacaagaat gattgctccc 1140  
 ttagcgcatg cgcttcccgg gtatagtctg aacctccgaa cccggaccct gatcgtgacg 1200  
 atgaagggtgc gaaaggatgat gcgtgagctg ctgaagggtg cgcataaggg ttctcaaggg 1260  
 tggctgcgtg atgccgacag cggcccgaag gctaaggcgg gtccgtacaa aatgggttagg 1320  
 gccaggggag gtataactaa tatcaatggg ctgtcctact aaaggcacta ccgtattctc 1380  
 cttttcttcc gaagttgaac aaaagctgtc ggaattttga gctttgccgg aaaatcttac 1440  
 tcgt 1444

<210> 4954  
 <211> 8345

<212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 4954

```
tcccgtgtag ggaaggccca gggtagacct aagttgcagg cagaaaggag tgaggttcat 60
gtgccgctac caatccgtgc ctgctttgag cgggatttca atggagaacc ctatagcccc 120
taggcttcca cagttgaaac ttgtcagctc catcagacgg ccggtttctg cgtacccccga 180
taacattatg gtggactgcg ttttgttctg cctgtagacg agcgcttgcc tcgaggtcca 240
ccatgggcta gggcatggct ctagagatcg aaggacttct ggggtgtgacc cgcaagacaa 300
aattgcatct ggttatcctc aagcaccctt attgatcaaa cgctcgggtg ctacgagtat 360
gcggatagag tcccttctgt atgaaatgag tactgcggga gtgttactct ttgttagcgc 420
tggaggtccc ctctttaaga ttagagtagg ccaaagaaag agagaagaac aagatggcat 480
ggggcattga gcgaacgtgc ctgtaccaac ctgcaaagt agatggactg tctgttggtgc 540
ctctcggcat gacgaggaag aaaaatgtcg atttgtccat aggaagaatg gaattctggg 600
cggatgatgc agaagtgaag gtcttgcgaa agatgtgttg aagaggactg aatgggatgt 660
tggcagaatt gctgcaacct caacgtgag gtcgttgag tctgatcaga gaaccttccc 720
tgggttccca cagcacggtt cattttcttg tacctcatac aacttaaaga actttgtctt 780
tcaaaaagat gacgaccttt gatgtcatc gttccttaga gcccttgtag ttggttactt 840
ccacagtctg gttegtttct tcgccggcga gttcttcac tctctctacc gtggtgagat 900
cattcacgaa gaacctaac cgcatacctt ctaggagtcg atcgagattg tcaaaaaggg 960
atagagtgat ataagctgaa aggctgtcac cctgaaacga tcgctgacgg attggctaag 1020
cgcagctagg cccacggtac ctatacgga accagtcgtt cgttttttcg atagccagaa 1080
gccctgaacg aagtcaaaga acgtgtgata atatgcatta ggattgggaa aattccccga 1140
gatattatth tgccaggaca aagatagtcc ttccagacta gcagagacgc tttctccagc 1200
ccagaatgga tgagctcgag ttcccatata ctatcttgac attgtccagc ggaggagcca 1260
cttgaggcca agcaattctc ttacatttt ttcatgtgaa aactgaatga tggcgtagat 1320
ggctctggcg ggcattgccc atgcatcact ctccggggct tcttacgaat gcaggccgca 1380
gtggctggcc agcacgtcag ctccataggc cactcgccga gcggttttgt gggagaaaag 1440
ggtacgtcat caaaagaata tcaactgattc ggggagtgc tttattcaat ctaatctttc 1500
```

ggagtcagtc cgagtcgaatt cctaaggata gctctgcaa gaacggacaa caaccgggcg 1560  
 gacgccagag ctgccgtctt tcgaaacaag cgaaaaggta gctttcttgc aatgttgcg 1620  
 tcaatgcttc tccagggccg catgaccggc ttcaattgag cgagccctcg gattgggatg 1680  
 aatgaaggga cgggctctcc ctggcattga gagattcaca aactcggaa acaacagggt 1740  
 ttgctgggct tggtgggcat atgcaaaagc gtttggtcg ttctccgta tatctgtcct 1800  
 gtcgtcccag ggtcctacat tatccctcc cgtataagcg acaaagacga tcgcagcaga 1860  
 tgagtgttca gtctttaagt gatgggcac acttcctagg acgccgaact cggccacaac 1920  
 tggagcttga ggaatgcag acaggaaaat tatggtaata gaaccgccc cgcggcactc 1980  
 agccaaatta tacatgcaa ggagcaaat gctttttgaa tcaagaacac gaggtgtcgg 2040  
 ctacgcatgc actacattga aggcttagaa acacgagtgt tagtcagcat ccactttggg 2100  
 cgaaaggatg cggaccgtgt tcattgggag aatcatgttt ggaataaata tggatgaatg 2160  
 ccctgggcat tgggccgggt atgcccagtg tgcttcgggt aatgcttgac gaacgagtct 2220  
 gtgttgaagg ccaaaaagct acttggtctg gactatggat cctggaggat ctcccagaaa 2280  
 cacaatcaaa gcggacatgt tttattttgc accctgaaag ttggaggctt gtgaccggtg 2340  
 agtcagaaaa gcgagtctgg tggatcaaga aagcgcgcct tatactgaca tctggggatg 2400  
 acaaatggag catggcgccc tgccttcgtg aagaatgacg ccagctgaga aatctgtatt 2460  
 gcgctcaccg caggttagtt gtcgtaact gtgactcagt ggcttcatat tctcactgac 2520  
 aaatccgttt ccaacggcat ggggaacctt cgtttgaaat acggcaagca atagcataag 2580  
 ccctgcaatc ctctgtctgg agtctcact gtgccgcgga gcctggttga cagagggtg 2640  
 accccgatcg tagggcgta ttgcacgcc tttgctagca ctagccaact tggttttggg 2700  
 ggcttgctct gattcgttga ttgacaaca acatcctaca acgcccctctg gcacttttca 2760  
 atgttcttcc atcaagacaa acaccggcgg agcataacta tataactttg cagacacccc 2820  
 acttgggggt tttgtcttct ctttcaacct cactttctc aacgacctag tcttctgcta 2880  
 cgcccatgtc cgctcactc ctctccgtg gcactagggc agccgatgtg ctgtatccct 2940  
 ttgccagtcc acagataaaa atcgaacttg ccagcgagac aggcagcgcg gcccgagcct 3000  
 acaccaccgg agaccgtatt gaagggactg tcaccgtcac cgccaacct ctcacagtt 3060  
 tcgatgaagt taacatccag ctggagggtg tgctttgaac ttcatgcac tgaatccaca 3120

aggtactaat tgcccgcctcc ggctaggatc tcaagccgtt cttgtggaac gaggcattgt 3180  
 cccagggcgc acaggagcaa cccaaacatt cctgagactc cgccaacca ttgaagactc 3240  
 cctctatcca atgccgcgcg ttcttgagcc tggccgcagc tatcagtttc aattcacttt 3300  
 tgtcattccc cagcgtctgc taccgcatat ctgcagccac cacaaggcaa atgcccata 3360  
 ccatgactcc cacactctct tactgccttc ccttggcgac cccgttctct ccagggacgg 3420  
 caggacggca ttggacgaca tgtcgctga catgacgcgt gtcacatacc acatccgggc 3480  
 cgaagtgttg cagagacctg tcgtgggtcc tgcaaagacc ctgaagttgg cgagacagaa 3540  
 gattcgcatc gttccagccg tcgaagagga accgcctctg accgttcttg attgcgaccc 3600  
 cgtctactgc acccggaag aaaaagatgt caggcgcggt accctgcgcc cgcgccaggg 3660  
 ccggctcgtg gtggccgcct cacagcccaa gcccttgag atgaacagct ttccgaacaa 3720  
 aagctccgag ccgacgagca cggctgctac tatccatctg cgcttcgacc ccgtggggga 3780  
 cgaagaaccg ccagctctag gcacggtctg gagcaagctg cgtgttgca cttactactc 3840  
 cgtacgccct tgggataact atccgactgc ttcggtagtt tctgcatcgg acatgtcggg 3900  
 acaggggtga taccaggaga tcttgccatt atcgagcagg tgtgttgct ctgcgcaatg 3960  
 gactaagcat ggcattgatt cccttgacg tcgatactct ctccagtcag cttcttctgc 4020  
 agagtctatc acagggccgt cggcctcgtg gtctggagac aactactata cagcctcgg 4080  
 tgtcgttcct gtctctctac cgaacaaacag agcgtttgtt ccgacttttc actcgtgtct 4140  
 gatctctcgc atttacatcc tggagttctg catctcatat cacaccccg atatgaacat 4200  
 catcacgccg acggtaactc tgaaggctcc tatccagctg acctccggtc aaccaggatc 4260  
 tgttctggcg cagtcactct aagaaatcac ccaggaggaa gtcgacgccg agtttttcag 4320  
 cccgcgcact attgcacccc cagtgatggg ttccgcaagc gtcctccag attacgcaga 4380  
 gtatacatct tctttaccca gcgcaagacc ctgggaggtg cgctgctcat aaaagtgatt 4440  
 tttgtgcct ttttctttct agctttggag tttgataccc aggtttccta ggaataacga 4500  
 gcaatgctgt tatgttatat agatatagat tagcattagt ttacatgaa ccataatgt 4560  
 ctattttatg catttcgccg tcgtctact ccaactgcact ggagtattca ctcaagctca 4620  
 tctggtctac ttgactcgtc tgatacagtc acttgaagag caagactcgc gcattctgcc 4680  
 aatgccttt caagtttcta tctattcact accttcacct tgcaactgtt aggttaaggc 4740

tcgcccgtta gctgcatta acggctagtg ttacatatgc atgtttgctt tgctgtgttt 4800  
 cagcggaaag tgaagttata cttcactctg cgctatacac ctgggcccgg gactgcataa 4860  
 gtatctccct tttgctcct cgagactact ctcttcttct ctcttccctt atcttctctt 4920  
 attcatcagt tttctctccc tcagctggct tccgttcgtc aagatgaagc ttcccatcct 4980  
 ttttttctct actatcttcc tegtcttgc gcaagcagcc actcttcccc cactctacca 5040  
 tatttaccga agcctcaact ctacctcaa caacaacacc aactatgccc ataacaatac 5100  
 caccggcaga gggcccggct atagccccgg tcccatctcc gatcctagtt ctgggtcaaag 5160  
 agaatatcgc tcaatggcat acttcgtaaa ctgggtacgt ccccggtat catttctcct 5220  
 tccccagtac cgcttctaa cgctattcca ccataaatag gcaatctacg cccgtcacca 5280  
 caatccacaa gacctccag tctccacct aacacacatc ctgtacgct tgcccaacgt 5340  
 gcgccccgaa actggggaag tctatctcag cgacacgtac tcagacatag agaagcacta 5400  
 tcctaccgat tcatggaatg accagggaaa cgacaacgtc tacgggtgcg tgaagcagct 5460  
 ctttttgctt aagcagcaga atcggcacct caaggctctc ctgagtgttg gcggttgac 5520  
 atactcgaag aatttcgcgc ggatggcagc tacagaagag gggaggagat tgtttgcgaa 5580  
 atctgcggta gagctgatgg gggatctggg tatggatggg gttgatgttg attgggaggt 5640  
 gagctttgct tgcctaagac atgaagttgg gcagaatgag ggctgatatg accggatgcc 5700  
 tgcagtatcc agaaaatgac gatcaggcta gtgactttgt tgagttgctg cgcgagacaa 5760  
 gagaagtatg cctaccaata atctcttcta cgtatcagtc ctaagtaggc aatgctcaca 5820  
 agctgaacct aggaactcga ccgatatgct gccgacaacg acagcgacaa gcccttctc 5880  
 ctgagtgttg cgtcgccagc aggtgcgtca ttcttccctc ctatttctca gtaaccctaa 5940  
 gtccataacc ctaatctccc cttacaaaac gaccaactga cagagccagg cccaagcaaa 6000  
 tacaccacc tgcacctctc ctccatggac cgttatcttg acttctggaa tctaattggc 6060  
 tatgactaca gcggtagctg ggatacaatc acaggacaca atgcgaatct cttcgcgtca 6120  
 agacaaaacc ccgctcgac acccttcaac acccacaccg gcggttaaccg cttacctagc 6180  
 cgctggaatc cctgcgtcaa aatcaattt gggtatgcct ctctacggcc ggtctttcac 6240  
 acacaccgac gggccgggga cggagttcga ggggtgtggg tatgagggga gctttgaggc 6300  
 gggcgtgtgg gattataagg cgttgccaaa acccggggcg gaggttgtgg aggttgagga 6360

gattgccgag agtttcagct acgacgaaga caagaaggaa gttattagtt atgataatgt 6420  
gggtgttgta cggcacaagg ggggtgtatct tatgcgtttg ggtatgggag gtgggatgtg 6480  
gtgggagtc agtggggatc gggaggtggg gagggtgggg agtttgattg agacggtaag 6540  
tttgcccttc tatcgtcttc tctacttggc cttggtacac atgggtttgga agacaaagg 6600  
tggatgctaa tatgacgggt ggggtgcagtt ggtcgacact ctcgggtggg tgaatgcct 6660  
cgacaagtcc gagaaccagc tggagtatcc ggcgtcgagg ttgagaatc tgcggaatgg 6720  
atttacttga aagctttagt aagtgaagc ataccaggat ctcttaggtt tacttgcct 6780  
tagcatagcc ggactgtgag gattagacat gtttctgact acggtgtacg gcgtttggag 6840  
tgaatgtagg aactttccaa gcgcattgga acaggtggaa ccgcaaaca aaagaggcca 6900  
aggtatctag aatgcttctc aaaccaaggc caggataaaa cactgaaga ctgaaaactt 6960  
aagataggtt tatgtcacac cggactttta catatacagg caatagaca aaagaagcag 7020  
aggcaggcga cctatataca acacctcaa acgacctcaa tcaaccaaca gccgtctatc 7080  
tcatccaac caatcccgca ggaaagaaga gaagggaaga ggagactaag tcaacatatt 7140  
atccaacctc tcccccaaca cgccttcaat ctgcttaacc cactttctca cctcacgttc 7200  
aacgacctca tctcactct ccatcagctc gctgatatac ggtaacatct ctggcaagag 7260  
cgcaagccag tcttcacca ggtgttccgt gaggcgttgt tcggtcttca gcgccgcaat 7320  
tctggtttgc gggttatcgc cgccaagacc aggaccggcc ctcttggtag tgctgctgga 7380  
aagggacgag ctagacggcc gcaggaaacg cataagcacg gtgttttagt ccttatgatt 7440  
gtccgttgag tcagcagcga cggcgagctc ggtgattgtg gggattgttt ccgtggcgac 7500  
aagggtcct gttgtggtgg aggtggcgtg gcggaggtgg gagattagag gtgtggagat 7560  
cttggtgata tgtgaggggg attgccagaa ttctgcgcat tgtagtaat gattctctgc 7620  
agaatacggg gggctagata tcaacgtggg cggaagaaga ggtacttacc atcctggctg 7680  
tgctcgaagg cgctgcggag catacgcat gttgcaagcc aaagggattt ggtgttcggg 7740  
tttgaggggc tgtgctgttt cgagcacgga aacgacgctt tcgataatgt agctggcgta 7800  
gccggtgaca atggactata ggacgttagg actttatctg tgaacgtggg gaatctacgc 7860  
gtataggaac gtacctgaag agtaccgaaa aagacctgca ggaagcggtg gaaggtagtc 7920  
aaccttgcca agccgccttg ggtattcttc tctggaagcc cggtcgcca ctcgacgagt 7980

ttgataaaaa taggacggaa cgctgtgtcg ttgagcttgt agatcatttt gatcgtgaca 8040  
 tcgttgatca gatcttcaat ctctcgaga tctgacgcgt cgaacgccga ttcagaagac 8100  
 tgtgtctgct ctcggcggag gtcgaatgcc cggaagagaa ttgttgtcag gacagaaagg 8160  
 ttcttcatcg tagcagactt gggatgtttc tcgatgctga ggctaattggc gtccaaaacc 8220  
 tcatgcgtag cggagggggc agcagaaaca gcttgtgtcc agttgcgctc gatggaggca 8280  
 agtgctacgg ccatatctac cttgcgcgcc ataaagtga gcgcttcttg gcggttctca 8340  
 ttgtc 8345

<210> 4955  
 <211> 3248  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <223> unsure at all n locations  
 <400> 4955

ttttgtccat aacgttgttt catagatctt gcttcacgta ctagtgcgaa agcaaacagc 60  
 ctctgagcgt attagagaac atgacgatga gaggcggcgt cgttcaatcg gattggcaat 120  
 ggcgagaagc tgaaagccgt aaagggttcg ggcgcttctt tttcatgctg ctgtttgttg 180  
 tgacagactt cgttcaacca atgatatcct caacgggata gccgcatgtg cgatgtatca 240  
 tagacgaggt aatgtcgtat tagtgttcaa gatcttttct tgtagtatcg aacgaaagga 300  
 agacgtgcga atatcagctg tgaaagaatc gtttatatcg tattccagcg ccgcgtcaag 360  
 atacctcctt cgcacttctt taccttctgt gataagctca tagaagtgtc catggcccat 420  
 cgtgttagct ggaaccact cgctgtgatc ggtgggtgcag cgataggagt gagctgctgt 480  
 ttcgagggtg taggctgaaa gtcgataact agagatgatt tcaggatcag ctatcagtaa 540  
 atcagagaag taaatgtttg acatctgagt ttactttgtt ggtccctggc gactttggac 600  
 tacgctcgaa gctcccgcta caccgtagct tcaacatcat tgtgaatgta ggcaaagagg 660  
 acaagaaaag tgggtttccg tacctaaagc cgggataggc gcaagccttt gtgaagcctg 720  
 atgcagagca aggtgaatta ttttgtcgag ggcgagaggt ttggcagcgg tgtggtcaaa 780  
 atggaggcat gagggaaaga gagtcgtaat caaccataga ctagctaata tctacggaag 840  
 acgcgacagg ttacctacag tcgcggtctg gactgtattc aaaacggcag gaccggcccc 900

caatggcttc ttttaagatga atacaatgca ctogttatag gcacaccgcc ctgacctgaa 960  
 cacagaagcc gtaatgcatg tccatacacc atgtaaagtg cgaattaatc tatttgctca 1020  
 agtaggcgta gacgaaccct ctataccttt cttttttcct cggagagatt gaccggttcc 1080  
 ctggaaacga ggcttctccg gctcaactac gtttcgccc tcgtctcggt tcggcacagg 1140  
 ttttatggca tagccaaaga acagctgatt aggtggtagg cgtagtggct gtggggccatt 1200  
 cgttctttta acgggagggg ggtgactggg gtttggtgct cccggcggtg gagttngacc 1260  
 gttggcggtg gggttttgct gcctttcttg gcattcagcc ggtggccgcc ggacaggaag 1320  
 ttcgaggaaa ctgcccgtgc acctgcagca gcattcagtag actctggtgc tatggctgca 1380  
 tagttgatcg actgggcat ggtgccgtgt gggtaggagga gcccgcagc cggcagctct 1440  
 ccgctcacta cgctccctgg tgtgctagt ccaactcgggc gctgtggctc ctgctatcca 1500  
 accggtggcg caaaatcgac ttcaagatcg gtctcgagaa cagatatagc gtttggtgca 1560  
 ttcgcaggct tcgtttccag cacagccatt tcatacacct gatcattgta ggcaatgtg 1620  
 aagacatcat cttttgtaag gcaagagaaa tttcgaaagg cattttctag aaccgccttt 1680  
 gggtagctga tgtcgaggaa agaggttgac tgggcttgaa gtttaatgaa gcggccgggg 1740  
 gggaggtctg tcgatttgat ctgtactagg tcgccgggct cgagcaggag tgtttgcatc 1800  
 aactatggtg tagctcgta gcaaaagtga tatacaaggc aagctatcaa tccaccatga 1860  
 cttaccagct acggtaggta gatcttcccc tcttcggcaa taaactccag cacaccagcg 1920  
 tgggacatct tctcttttgc accattgtgt agctcgaata gcatgggata tgtgatatgt 1980  
 agtcgagtta acttgccag agcactggga ggcataatga ctttgccgcc gtgattcacg 2040  
 ttctctcttt caggaccggg catcatggcc acgggataac agcggtagta ttcataaag 2100  
 cggcgtgtcg ctccatgccg gatcattcct tccatgggat catctccca gtagctacct 2160  
 cgaaactgtt caagtcagca gataccaag aagcgaggta aacactgtca agagaggctg 2220  
 cacgcggcca tggcggttg taggtgttc aatcccgatc ttctattagg caagcaaaga 2280  
 gcccgctctt gagaaaggct gagcaaggaa cagatctcga ctcaaactc agctttcaag 2340  
 taagaagctg ggagttgcgg aagtgaggcc ggagtttctt tgatcgcccg cagtgcgca 2400  
 aaggctccac aacgattttc cgacccgacc ccagacaagt cgcattcagg agctgcctaa 2460  
 atctcaaact ttgtcgcaac agctatgata ttctaagaac tgactgttga ttggagtcaa 2520

caaaacatgt cgacatcact tccgcggccg aaacggggccg gtgaagactt tacgcgcacc 2580  
 cattatcagg aagatctcga cgactccggt gcctccaaaa aaccgcgatt tgacctgcga 2640  
 aatccgtcca ctcttgctcc agacgcgctc gaagatgacg cagtactgga cgcagacgaa 2700  
 ataggacggc gcgggcaaca agttcggcga aaagccgtca acctagatgg ctacgaatca 2760  
 gacagtgaca acgaaggctt cgacgcgcga tcctctaaaa aggcacgcca aaatgaagca 2820  
 aaacaagaag cagacgatga cgacatgttc gccgagctgc aggaggactt tggcgccgag 2880  
 aacattgacg gcgacgcagc gctacgaaag aataagaaaa atgtgcggtt tctacgagac 2940  
 gacgagattg aaggtcaggt tgcgtcgtcc aagagcgggc gaacattacg cgtggatctg 3000  
 agccaggggtg gtaacgatgt taatattgac gaagatgatg agagcgagag cgacgttgcc 3060  
 gaggaagacc gtgcgaggggt tgacagcggc atggacgaag aactaggcgc tggggcaaag 3120  
 aaaaagcatg cgccattatt ggatgcgttc aatatgcgtg ctgagcaaga agagggccga 3180  
 tttgatgagc aagggaatta tatccgaaa gccgcagatc ctaagcttgg gtctccctat 3240  
 agtgagtg 3248

<210> 4956  
 <211> 6865  
 <212> DNA  
 <213> Aspergillus nidulans  
 <400> 4956

aattttccct atcaatctgt caatctaate aaatcagata atcagccgta atgattctca 60  
 tactgtaact atggattgac accacacgct ggctatctac cacgtaatat ttatcctccc 120  
 cactcacaat gcccaacgcc tactagtcta ggtgaaaact ccaagctctc acgcccagct 180  
 gttcgtgatt cacaattatt acttccaaaa tcctttcaat agacattgcg ctctgcgacc 240  
 ttagcgagtg ggggtgaaaa ctttttcctc cgcttagctg cagaagtggc ttttttcgtc 300  
 agcggcttgc acgctattat ccaattgtat ctgttcttcc acattagccg gggtgatcgc 360  
 cgtctaataca gatgatcaga taaatttcta gggaccacaga gggccagaat tgtctgtcgt 420  
 tgcgttgagg tcgggtacac gatcggcatc aaggctacct caacctgcag agccccagct 480  
 cttgggttcc gcgatccttg agacattccg ccggcagggt caattctgga gtctgtgcta 540  
 ggggttggtg tacatctcat tacagttgac acaattgtgc acctctgata atgtcgggtg 600

ggctcgaacc ggtgagtgc agctcgtcag tatgtgaact tgcgactggt aaaacgagta 660  
 atagttttga tccggtttcg gtgccagatt cttggccatt acggcgctcg acgaggcttt 720  
 accagtggaa cgcgaatttc aggaaccggg ctgtcttcat ctgcctgaga cccataatga 780  
 ggggtagaat ctgaaaagtt caagtggtag acagtttctc ctttgcgccg gtgtggatct 840  
 gccagaacat ggctgtcatg tactggtaaa acggctgtat acgctaaaac ggtaactggt 900  
 attgtttttc aatttcagtc agatagtggg tttatcaatc aaatcacaat cagataagat 960  
 tgcaccccca cttcacctgc gaggacatcc tcagaaaaag aaacatatgc aggaccaagt 1020  
 ttttctctcg cacggtcagt tatgtctctt catggaaatg tgtagcgaac ataaactgac 1080  
 tccacctgtc tcagtccagt agtttcttat ggcgcgttgt cgacccaaat ttctgggtta 1140  
 cttttgacga gagatgtccg cggggtaacc tgcaggctgc agctacagca gagagtagat 1200  
 actccagttc agcttccaag atccagattc tgagggtctg gccgatctct ggggcgatgt 1260  
 cggcgatggc tgaccagaac tagaaggggtg gtgggggtgc tttggttgac cgtcgacggg 1320  
 ttccgttggtg gtccggatca gataacttta gttgtacagt agttgggacg acgaccgggt 1380  
 ctgacggctg ggtcaatgtg acgtcgcccc tggcatcgca tttctgatat caaacagaga 1440  
 tataggcgaa aatcggaacc caggggttct agcaggatcg ctttctcgaa ttagatatc 1500  
 ccgaactgta gatggttggtc tgccatatag cccatactca aatataagt tttgtgtagc 1560  
 gattcaggac gacctgcagt ttccaaaaat gatggtacct gaacgcaagt gccatataac 1620  
 gtaataggaa gtggttggtc acaagaacta gacacctcta gtgtgcttgc atgaccaggt 1680  
 cggcggaaaag cctcacaggg caagggcctt gccgtctaac ggccacgacg tatgaatatg 1740  
 ggaaacgcgc agatgaatcg gtagcccgac tttgtggcga ataaatatca gaacctggag 1800  
 gttttcaggt ctgcctactc cgtctgctgc atttgcgct tacaagctgc ccagtgccg 1860  
 catatcgaag gtccctgacg aactgaagat cattatcca tttcggtcgt cgaaactcct 1920  
 atgcactgat tgttattctc atgcagctgg tcgatgttgt tcataacaaa gcattgcca 1980  
 gcatggagcg tcgcaaatgc aaccgaaatc accggagaag cattattcag gaccctacaa 2040  
 ttgagcatag ctcatagtct atgctcaacc gttcggtaga gtatgttaag gtctgcgaca 2100  
 agccgtaaaa agacggaaaag ctgttttggtc ggcgctaagg ggtgatgagc gaaccgctag 2160  
 ccaagattca acaggtccta tctccctcaa tcgtcccctg agaggatatc cgatcggtga 2220

atcggttact caccagcatt taggactgcg tagtttgtct tccatcgcg cgaggggtgc 2280  
 aggctcgagt ggtagagctc ctgttaacta ggttcagtct caagcggccg ttgtaaggcg 2340  
 acaagtgttt aaccatgctc tcttatacag aaagtagaag tatgagaagc tggaacttac 2400  
 tagacaagac atacaccacc tgcattgtct cgcaagcatt attatatattt taaagttggt 2460  
 gcaaagacgt gtaaagtcaa tgctggcatt attgacagaa ggataataaa agactgccag 2520  
 tcccagagata ctgagattct gtctacgtta ggtgctctc acactccaat aggaagataa 2580  
 ccagccattc tattgcagca acccttgccg atcgtctttc aaatacagcg aatggacatc 2640  
 ctgaggacga gcgggcgaaa atatagtcga gtaacaggta acaggtataa cctgtgtcgc 2700  
 ggcaccaag cgacacgtta ctggcgtcag ggcgagaagc catattgacc ctttgagatc 2760  
 gttattcgtg tatcacgcac aaaatttgac ctgcacggcg ggcttgccac ttagcacaga 2820  
 aactatgaag aggcgcttaa gagcgaatct gtaaaaccgc cgacagatcg cttacgatac 2880  
 tatagcggac cgaccgtcta aaaatatcgt tgagccctat gcttagggct aaatatgact 2940  
 cgtcgatccc cagtaatctc cctgacaaaa gcggatggag gccctcggtt tgggattgca 3000  
 gaaagcgtcg gccaaaccga gtgaagatat tgcattcaacg ccctgagtct atgatagccg 3060  
 gggttcactc ggagagccga tcttgccgtg gaacattcct aaggtcggag acttgttgta 3120  
 cggtttccgc gctagtatag agcgacaaat atgctgtagg aaccttgta gcacggttga 3180  
 tagcatgagc ttgaatgcta tacaacaaag ggaataccag gtgaatgtgg tcagcggatc 3240  
 ttgccagcat cagcaaggat acacaaacaa atgagaagct ttccgagaag ctttaaggct 3300  
 gcacaaccgc gacagttcac ttgcagaagg ccgcggcatc tgcattgctt tttctgtctc 3360  
 tgttcccttt ttttcttttg ttctttttct tttctttttt tccccctcgc tgccgggact 3420  
 ttcagccttg tcagccctat tctccaccgg tcagatcctg gatccatag attatggacg 3480  
 gcatctgtaa caagacacgt agcagtcct accacagata acctccgagg tccccgtgct 3540  
 agcaatcata gacaactaag ttcgtggaaa acccaggcgc ctttgatgag ctctcaacc 3600  
 tgaattgccc agcgccactt tcgatggacg acgaaaatgg aaatctgacg tagagcttcg 3660  
 gagcgccgc tgaatagtgt tacatggcag tatgacctg tgcagcctgg ctgtggtgcg 3720  
 gcgatgggct ggtcgtaac gcagggaggc ccctgggtta gatcagtga ctgctcgtgc 3780  
 atcattgctt gaccagaggg cattcacctg tccaacatca ggacatagct ggagctgtga 3840

gtacgggtctt tggatcacag atactctccc aagtctcgct ggctcaacca agtgcaaaag 3900  
 atgggtgctat gccagtgcga gataggcgga cagccgagag ccactggata cgtgtctgtc 3960  
 gtataagcga accatcgctc tgccgtcctt tattattctt atattcttgt cgcgataata 4020  
 ttgtagaatg tagatgtagt cgtattttctg agaaacatca tctcaagtag gtaatgtttt 4080  
 ggtctaaacc taattaggaa agcaaagagc tttctcggcc gtgggtcaag tgttgctcgcg 4140  
 tctcgacgcg tgttgcaaca atcgggtttcc tgtactcacc ttatttcac cacttcattt 4200  
 gacagtatcc ataactttga aaaccagaaa gcatgtcctc gcgagaccag aaagtcccg 4260  
 aaatccccac tgagccgcca gacgagacgg atctgtacct gatcttgggc gtcaaagaag 4320  
 atgccacccc ggagcagatc aagtcagctt acaggaagct ggctctaaga catcaccctg 4380  
 gtaagtcatg tcgtgcgttc tgagtttaat atgaagcttt ttatgtttga cagctaacta 4440  
 gactaaagat aagggtccag cagatgctag ggaggaggcc aaccaacagt tccagaagat 4500  
 cgccttcgcc tacgcgatat tgtctgatcc gcgtaaacga cagcggttcg attcgacagg 4560  
 tagcactgct gaagcggtcg aattggatga cgattttgat tgggtggatt attaccggga 4620  
 acaattttcc accgctatcg acacgaacgc tctcgagaag tttaagaatg aataccaggg 4680  
 gatctgagaa agagggaaaa gacgtgctgg ccgcttcgaa gacctacggg ggtgacatgg 4740  
 accgggtcta cgaatcggtg atgctgtgca atgttctaga cgacgacgaa cgctttcgtg 4800  
 ccatcattga caaagctatt gagactggga aggttaaagg atacaaccag tatacagaag 4860  
 aaccagagag aaaacggcaa cagcgactaa agcgtgcaca gaaagaggcg aaagaggcag 4920  
 agaaactagc caagaagcta gagaaagaga aggaggtggg cagcgcaaaa gcgggggggc 4980  
 gaaagtccaa caagggcagc gcggtagaga caaatgattt ggcagccctg atccagcagc 5040  
 gtcaggcgtc gcgcgccgag tcttttttcg accgactaga agctaagtac aacccttcag 5100  
 ggaagaagcg agtggcgatg gatgagcctc cggatgaggc gttcgaagcc accgctgcac 5160  
 ggaggggctc gaagaagaca aaatccaaga caagggcata gaggagctgg gataaggcgt 5220  
 tggattggat cttggttggc catgataggc tgggatcagg cgttctggcc atgggagttc 5280  
 acattacata tgcactgtct gggatagtca agctagcatt cgtggtttat catgcatgat 5340  
 cttcataagg cattcgattc ttctactgcg gactgcgact ggtgatacaa atacctcaac 5400  
 aattgccttt tcgccaactt tgggtcacc acagccacac agagatcgct cacatcacac 5460

ggcatacgtc cgtcagcccc gtcggtatca gtgactccat ggtttcgtgc tgtgtagatc 5520  
 gtagctctcc gcaggettgt gatcatggat gcctaattgg tgctgtgaat cattcctaatt 5580  
 gcatgccaac tattgatcga ctaggaaggg agctgcagtg acaccttttc gtccgacagc 5640  
 agaggccact ttttctccgc cttctttag ctgatctgct aagctaacga aaagacgcaa 5700  
 gggagacggg gaggtgttgg acaccattga tgaatgaggg aggcctgctt ggctcgaggt 5760  
 ataccccgca tgccgagcgc gaaggcgaac catcctgttt ccccatgcga agcttcactt 5820  
 ccccgcgat gatttaactt gacttcagcc ctctgaccg atttcgcctc ttgctttctc 5880  
 tgctcgctg tctctcttta ccttcacgac gaccttgtcg cgcttcagt gaaacgactg 5940  
 tctcctcga tctcgtctc attccacctt catcgtgct aagccacaaa ggcccccttcg 6000  
 ccggcctttg caggggaccc tgcaggaatc ttgccgcggc ttgattggaa gtatcaaccg 6060  
 tcggctccgt tcaactattc tctattcgcg gtgtgggagc caaggatagg ccaagcccgga 6120  
 ggaaactcgc aaaacaaagg gagaatccga taggtcgtga ggccgtcgcg tgcccgcggt 6180  
 gtccgggagc tcgtccctac actgggtcta gattcttagt attcaccaag ttttgcacgt 6240  
 ggatgacgcc tccgaaacgc tcttttagctt tgagttacgg tctgttagct gcagcctagc 6300  
 ttgcatgccc agaattgggc atatatgaat acaatacccc cacctagctt caaatctcgc 6360  
 tgagcactag gtaaaaagga aaagaaaagc ccgagtttcc acagctgaag tgcaagcttt 6420  
 tctgtaattg actgtcctcc ttcagatagc tctcgccaaa ttacagctgg gtcccggttg 6480  
 tcgcagggtt cgcagtgagc actcttctcc acagctcgtc cacagccgtg ggccggcgcca 6540  
 cccacaaaaa tgccctctaa tcgcaggccc ggccggcgtc cgctgccctc gaagaagagc 6600  
 gcctcgagct tgcttctgaa caccgcagtt cgtccaagca ccgtactcg accacaagct 6660  
 acgcccttcc gcgacgaagt atacttgaca ccgccactgg cccgtcaccg ggttttgcgc 6720  
 ttctcggca tggagccatt gcgggcatcg gtgttggcgt gactccgcc gctgctcgtg 6780  
 gccacccgga aacaccaaca aacgtcccc catcacctcg cctccccctgc cgaatgaatc 6840  
 ggccggacct cccactgaac cgcgc 6865

<210> 4957  
 <211> 3460  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4957

actacagaaa attcgtggtg ggatcttcgc tcccgccacc cggtcgtcga gtatcccgtc 60  
gagggcaaca tcggcagctg cgaactgaac accctcgcaa cccgccccaa cgataccggt 120  
atcctttctg ttgctgcagg aaagagcgtc taccttttcg atggacatac tcctggaaga 180  
ctctcaaga agattgactt cgggtacgag gttgccagcg cggcggtgaa caatgatacg 240  
gcccgtttag ttactggcag cgcggacgac acctgggcac gtgtatacga cttgcacaca 300  
gatgatgagc tcggtatgcc gtcctctatg cgtgtttctc tcgcattatt tgattctata 360  
attatactaa ctcgcaatag aagtccaaaa gggccatcac ggcctatct ggtcagtgag 420  
cttctcgccc gacggtaaata tatacggtag tggaagtga gacggaacga tcaagctctg 480  
gaaggcatgc agagagccgt atggtctttg gcgctgattc ggactgcgca tgtcccaatg 540  
aagacaagtg tatagtcata tagagaatct aataccaata acccttcgtc taattgtgtc 600  
gtaagattta cttctctaac ctgcgtagaa ctctaggag ggtgattctc gcacaagcct 660  
aagacgggtc cggttaatat gaacagagat gggataatat tgaatagacc tctatgtaga 720  
cccgcatatt tgagggtgcg acttttgaat atgagaattg ccgcctaaat agctactcgc 780  
aacatacata acgaaaccat gtgtgggaac aacggtcctc tattcaatca tgtcaatatc 840  
atcatcagca gccggtgccg ccgccgcagc aggcgcagca acggcagagg cagcaggcgc 900  
gggttctgct gctgtttgtt ccggagcagc agcctgctca gctgtctcag cagcagcatt 960  
ggaaccccag taatcctcca tctcctggtc gagttcctcc tgcgtcttct tgggtcgtgg 1020  
gtttccacga cgaccatcgc cgccctgtcg tcggccacca ccagcgcggc gagctggggc 1080  
ttgttgcccc ggaatatagc gatcaatgtg gtcgggggcg ggcttcgaaa cgtcgtctgcg 1140  
acggtagttt ccaccaccgc ctccgcgacg gcgacgacgg cgtccggcgc cctcagcgct 1200  
ttcgcttcga ctctcaggac ttaaactgcg agcatcgcgg ggtctttcaa cacgggtcaa 1260  
gagactgccc cttggctttt cagcggatc aaagggattc cggctctcgtc gcgggcccga 1320  
ggaagtgata gaaatgcgga tcggttgccc cttggcggtg gcgccgtcga attcagctat 1380  
cgcggttttc gcacgttgtt aacggctgta cgtaacgtag gcgacgcctt cggagcgtcc 1440  
agctcgatca tagacaagg atacatttga gattggccca atgcgggaga ataactccta 1500  
tcaaaggaag gttgttagag aataagatat cagaacttta tggaataacg tacttcaagg 1560

tcggtctctg tgatatcgta gtggagattc tcaatgcgaa gtctggtacc cgcagacgca 1620  
 ctactggcat ccgttttagcg tcgtctatag tccaatacat ctgagtaaac cataccggtc 1680  
 cggggacggg gagtatcggt ctacgcgagg ccgtcgtccg ccacgtgaag gacgtgctga 1740  
 aagtatgtgt aaggaccaaa gacactgggc attccaattc tgtcgttgaa gtaggttcag 1800  
 aacgtactgt ctcgatcgtc ttcataattta tcatgaaccc aatcactgta ttccgcggag 1860  
 agaagcagtt agttaaatg agaacaatcg caggtgagac tgatagggcg ccgccttaca 1920  
 ggtccaaatc aacacgttca tctcgataag gctgttgtga tcagagtaaa agaaacaagg 1980  
 tcagcccga atcaaactcag gtgtcatgaa actgctgcat cattttctgt ggcgattctc 2040  
 gtagcctcca ggtctatcca aaagacaaaa cacgggcgca cttgagtttt gcttatgaca 2100  
 atgctggagc aaggcgcgaa agaagaggaa caagaggtag aggaagatga ggaggaagga 2160  
 cctggcaagt gaagaatagc gaattagtca aaataaactc ctttcggctg gtgctgagct 2220  
 tggcccaagt aagctgtacc ttttttacgc cgttgagcg gcgaccttg ttgctggac 2280  
 ctctgttctg gccgcgattc tgcctctgct agataggcac atcagcgacg ttcaacggaa 2340  
 tagaagactg ctgcggatgt cgcgactga ccggccgttc tgcgatgatt tcatccaaac 2400  
 tgcgatccat tttgacgcga aggagggata ttgcaaatat aaggagaaga atgcggtcga 2460  
 tctagataat atatcggagt ttgtaacaca gatgattagg aggaagatat ggacgaagta 2520  
 tgcataggga ttccaagact gggatagaag cttgccaaag gcgcaggcga atcacgtggc 2580  
 ccaggtagca tttgtacatt gaagcccgat cccggaacaa acaaaatcag tttgtttcta 2640  
 cttgaacatg gttctgtttc tttttctttt tctttttctt tttctcttc ttcttctttt 2700  
 ttttggtggg aattactgct tcatatcttc ggattgtcta cacagtgcaa gtgatgcgta 2760  
 ggtctccatg taaaccagaa gacaacgaac gagaaatc acaatgcaaa gatggccatc 2820  
 gccaacgcca ttgagtacca atcaacacct ataccacaaa caagacggta atttaaagaa 2880  
 agaccataaa attgattaag aacggatcac acgctgccgt tgataggcgc attgccctga 2940  
 ctggagttgt cgttcatcat cctctccatg aagctgatgt agtcatattt gggaaggtct 3000  
 ctgtcttcta acaaatctgg accttcgtgc tgaggcatag tcttgacaag gtgctcgata 3060  
 atctcgtccg gaatgagaga gtgtcgaagg tcaagctctg tgacgtacgg ctatattgaa 3120  
 aaggtcaatt tgggcctac ttattcagac caccgaaagt acataccttg ccactctgca 3180

cctctcggaa gctttgaaat acctgttctg cagtgttctg atcctccgtt acgctgacca 3240  
 taaaacgtat gaactgctcg aaactgacac ccgcaccttg agctagccta gcaggaccgc 3300  
 atgtttccac gtagacctgg tgcattctctt cctcatcata cacaaggccc aaactggcaa 3360  
 gcgcggcgga gaactcgagt tcttgaagcg tattggatga atcgcggtca aaatgtcggg 3420  
 acactgactc aaactcttcc aattgaatag gagtgaagatt 3460

<210> 4958  
 <211> 7148  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 4958

ctcattttca aggcgagcat agcgcctcagt ttcttgttgg agctgtggaa gtcagtactg 60  
 agcgtataac accgagaaca atcaaacctt cgctgtaaga atctcatgct ccctttgcaa 120  
 agcagagtag aaggacagac ctccatcggg ctccataggc ttctctccca atgcaatcga 180  
 gtcattgagca taatgtgacg gtcgggtctga gatggtaaca gtttcattca ggccaattgc 240  
 agcctcatca tcaaatacct ccgcgtccga ctctcccacg tccagcgatc catagtcggt 300  
 agtcaaacca gtgtgcagct gtgcaggcgg tcgtagtgtg gcattggcga cattgatcgg 360  
 gttaatctgg gcataacgaa tgggtgacctc tcgctcagcc caattctgtc gcggttccgg 420  
 ctctcgctgt gtaggatgtt cggcctgtgt agcgcgaaaag gcatcttgct cgagctgctc 480  
 tagagcatcc gggggtagat cgtcgaagcc gtcgtcggaa aaaacatcat catcgaagtt 540  
 ttccatgccc aagaagttag gccgccatga atagcgccgc tttattggcg tagagtttgg 600  
 tggcgcgcaa aagttggtag tctggacagc cggcaggctg agaaagcgag gaaaacacct 660  
 gacgtaggta gctggcagtc acccgcgatc gagcctcaac catttccatc ctcaccttcc 720  
 cctcgacatc atcgaccttt ccccgtaac gccggttgat gacagatttg cccttgtttt 780  
 gcgaataatt gccctgtcta tgggcatcgt cctcgccggt gctttttctg ccgccaatcc 840  
 ctctctctc acatgaaatt ttctaggcg acgatcactt gtccccaact gttcacacgc 900  
 actccttggt tccacctttc ctctctctca cacgttcgaa ttcattcccct ctagacctgc 960  
 tcggcatttg ccgcccgtcc accatacttg actctccaga ttccgctcag ctagtccctgc 1020  
 cccccgcac ggctctgaaa cggccctcag gctcccctat tccataatgt ccaagtcacg 1080

ccggagcggtt cggttccaac atcgggtccga tggtcgacgg ccgagtatat cagatgccag 1140  
 tgatgctgct tctgatccgg gcagtcgctc gaaaaatgga gtcgttgctc aaccgcgaac 1200  
 aatccccgag gaggtacgga tctgccggtt tgccggggac tcgatgctga cgctgtttta 1260  
 gaaaaccgaa gcacccccgc ttgacgaata ccagaagaag aaacaaactt ttatcaccgc 1320  
 cacaatatgg acttttggtta tgattgccgg cttcttcatt gccatgttct cgggccatat 1380  
 atacatcatt ggtcttggtta ccgctgttca gatcatctcg ttcaaggaag tcattgctat 1440  
 tgcgaaacgtg ccaagcaaag agaagaacat ccgttttacc aagtcgttga actgggtactt 1500  
 cttgggaacc agcatgtact ttttgtagcg tgaaagcgct atctattact tcaagcacat 1560  
 tcttctggct gacagagtgt tactgccctt ggcgtctcat caccggttca tcagtttcgt 1620  
 tctctggatt atgggtatgt tccacttgta tgaaggatt gctcatgcta atctcgatag 1680  
 gcttcgtttt ctctgttgca tctttgcaaa aaggccacta ccgtttccag ttcactcagt 1740  
 tcgcttggaac ccatatggca ttgtatttga tcgtcgtcca agctcatttc gtcatgaaca 1800  
 acatcctgga gggatgatc tggttcttcc tcccggcttc tcttgatgc acgaacgaca 1860  
 tcttcgccta tgtctcggtt atcactttcg gccggacgca gttgattcaa ctctctccta 1920  
 agaagactgt cgagggattc ctgggcgcct gggtttgac cattattttt ggctacttca 1980  
 tgaccaatat cttgatgcgc tacaataact ttatctgccc tgtaacgat ctcggatcga 2040  
 acgttctgac gggtttgag tgtgacctc acccagtctt cgtccctcaa gcattcgaga 2100  
 ttccggaatg gaccggattc ggcaggacat ttacgttgcc ccgatgcaa ttccacatcc 2160  
 ttctgttcgc cacatttgcc tcgctgggtg ctcttttgg aggtttcttt gcctccggtc 2220  
 ttaagcgctc cttcaagatc aaggactttg gcgagtcaat cccgggccac ggcggcatta 2280  
 cggaccgcat ggactgccag ttcattatgg gcttcttcgc gtacatgtac taccacagct 2340  
 tcattgccgt tttcaaggcg agtggtggcg acatcattga ggccgccatc aatggcttga 2400  
 cggttgatga acagctggag gtgctccgcg gcctgagcaa atatctatat aaccagggag 2460  
 cagttcccga gtcggtacgt cgacggcttt catactatgg tacgctggct aacttttgca 2520  
 ggttttgag cttcttagca cggaactgca gcgtcactaa accctataaa cgacacctag 2580  
 tgccttggtg acgcttataa cctttgaaac gaatacattc tcgtgcgaga cacctattgc 2640  
 ttatgactaa taccttataa ttgacgtctt cacctctcgg tcgtctgacg gtacggctgg 2700

gccttttggg tgagttcttg tacatgtgag gacaatgtct ttatatattcg ataccgtgtc 2760  
tttttagtat ctcatggggc cggttggtgt aatggccagg gcacggcgga cgttgatagt 2820  
ccggggatac ttctggtccg aaagtgcaaa atggtactta gcagacagtc aatacaccac 2880  
catctgtatt agactatggg ttctctatag aggaagtcaa ttgaagtaga ccatctctgt 2940  
cccacacttc cttcacctc acgccacatg tctctctacc tcttcatcag cccctcgcca 3000  
aagtcacagg cactaacaac cgcattgtcg cacagccact gactcttcaa aagcgaaagt 3060  
cagaaatgcg cctggaacac cggtagacac ctttggtact cccagaaac catgactccc 3120  
gtaaagcggg agatttacct gtaagatctt tcgctccttc tgttgctccg cgttcttctc 3180  
caacctcgtc ctcatagttt cccctcacgt ccgatgaagg accggcttga agttggagcg 3240  
taagggtcga ccatgcaaca actgtggcag tatcagactt gcactcggct tctttttctc 3300  
tacatactcc tacctttggc gtcgtcgta gacgcgctgt atcagtcttg gtattgattg 3360  
ttcttgcgcg ccagtagcca ggtactaggt gcggatcgtc tgcgtcaa atcaaggtat 3420  
acatttcgtt tcatcttggc acaattggag gtatataaag agctgttcac atagcgtagt 3480  
gatgctgttc tacgcgttat gggtaggaag gtttgacact tggtagaaa gaaggggagt 3540  
agagcagaat gtttctgaag cctttgatga tgctctgata caagagtga taatggattg 3600  
gtctgagctc tgatatcata gtccatctaa ttattaagtc cgattcattg atataatagg 3660  
ttgatttgag tgacacatac ttcggggccat tttattagg aggctagggt acggtgtttt 3720  
gtgtaggaat aactatttct gaagttgggt cgaacctcat gacactcatc ttgaaatcac 3780  
ttcaagaaac tcatcgaaag cgccactgtt taatctggca ataaatttcg ttctctttcc 3840  
tgctgactgg ccactttccc gacattcggg tctattctca tgactggtct ttatgaatta 3900  
ttgtagctac tgaatcaaac gcggcttcag gaccacgcct atcaatattc gttgcgaatc 3960  
gacgcgtcat acgtgacctc ccatatcaac tccatgttct gcagcaggcg aatgtttcac 4020  
tgattttttc gctgagtttc agccatcatg taaacagcta ccctacagtc tccacaagat 4080  
gaagtagata tatcagactt cgagacattt tgaaggctca gagggaggag gaggagagag 4140  
gggaagaccg ttgaaatcct tgctccctta ttgctgtgag tgctgactgt gctggctgtg 4200  
ctggaggact agagatcctg gttctgtact tgagccagtc tgttaaagat tttgcggttg 4260  
tttatgagtg agacacggct agtacgctac ctggagctta ggttccattt gcagcaattg 4320

ttatctccaa ccccgatatc gtggcggttc cggatatgcag atagtataca atgggtttttc 4380  
 tctgtaatta tgctgagata cgtaattgag tggctgtcct tgacgtgtcg gtaggggtcca 4440  
 tttatcactc aagtttgcta ggcttcgcac tgtgctaaga gacttgggtc gtataggagg 4500  
 tccaagaatt gggctcactg ggttattcgc cgtgcggatg cgtatagtca ttactggtga 4560  
 ctgtaggttt agatctatgt gctggatgta ggagctgcta tggactaagc ctgtatagca 4620  
 aaccctaata tgaaagaagc aaggttcctt ccctaaatgt tttctctgaa cttgtccggc 4680  
 tattcggcac cagccggggc cagtagaggt attgtctgaa acccagtctt ccgttggcca 4740  
 gttgatagcg ttgctaaatt tctgatactc gacgtacagc atccgcaa atgcccctag 4800  
 gggtcgcaaa tgtacgcggg acgtaaatcg gccacatttt ggaatcaggc cgaagcgttt 4860  
 aagcgatttt caaccaaadc atgggtggata ttctccatcc ccgtgaaagg acagactcgt 4920  
 gccatttgta tacagtggta ttgattgggt gtaagaagat ggccaaggca gcacgtctgt 4980  
 tggttctttc agggcttgcc agactatata agacccatag agtgcaatac atttggacta 5040  
 gacggatatg gtgaaaacgg gacgcttctg cggcgacgga ttagaactac ataccctgct 5100  
 ggggttagtt tctacaaggt agcctgcaag tctatcgtgg attcgaattc ggccaagggc 5160  
 agataaacgg tcatggtgct atagagtgtg taccaatagg ccgtactcac tgccaatata 5220  
 ctgggaacac catggagtta attcaaagcg cagtacgaaa gctaccataa taccaatgat 5280  
 aggatgacga tgatcagtac gaacagacca aggaatggcc ccaatcctga ttgcggatcc 5340  
 tgattcttca ctctgaataa acaggctacg ggagcctggt cttgaatcgc ccaccattgc 5400  
 cacagtgtca accccgagtc atcggtaatg ggttggtcgc gacagcaacc accctgaaac 5460  
 caggcccgat tacctactga tggctcgata gactgtggc gttccatgga caactagatt 5520  
 ccgtctctgg ccgctaggta aactgattga tcttggattt ttgaggggat caagcggcga 5580  
 ataaactcct ccaggctaac tctcttgctc gacaaaaatc gaatctgaat ttgatctata 5640  
 atcctattcg gaacttgtga ccgaaaggaa ttggcgactg gacccatccc tagatgtcca 5700  
 gtttgacgag tcgggtgcta tagatctctg ctggttaa ac gagatacgtt aatttgtact 5760  
 ttagagagga ttccaccgga ccgtgatctc aacaatagag acctcatcat cgatttacta 5820  
 ttggtttcgc ggggaaaggc gaacgagggg gtccaacggt cgatattacc tcatgctaga 5880  
 cgtgttcgcg atcggaatga gatagatgaa gcgttcttgt cgacctgttc tttatggcgt 5940

cacggttgta acatattgtg acgggtcaac acgttcatga aatccgttgg ctagatcaat 6000  
 ggccgtctgg ttatatcaat gctttgacct gtcaattcct tcagcttgct cagttcgggc 6060  
 gaaagtaact atagagctgc tgtgctttgc cccgcgcttt catctgaagt tctgaaccct 6120  
 tctgtccagt gccaagctca aaatgtttca cctcgacctc aaaaatgatac aggatcatga 6180  
 tcgcggagat ggttggcttc tgattggaac gtgtgccgta cgcctccgac ctgcatatgt 6240  
 aaagatccac ctggattatt agccgcactg atcgttatgt ccctacaaag tcgctaataa 6300  
 gacatttggc ttttcaccac atgacaccag atagtgtaaa gtgctatagc gaacgagtca 6360  
 ttgccgacga cgtgttttagc cccttgccaa cttagttggt tttcttcagg atagcgctat 6420  
 tagtatttgg acagagtcgg ataggtcaat gaccccttg attcttgatc agtcaagttg 6480  
 agtccacaaa ctatgacagc tgtggatctg accgggcccgc agaccagcgg caccggcagc 6540  
 catccaagaa tactttgcag tatccgcttc ggagactgag tcttgaaatg aggtgaagacc 6600  
 caaaatcatg aaggctggac aagtcgagtc acccagcggc ctcggagatt ccgtccgggt 6660  
 ctcttagtcc tgtcaatccc tgctcgaagg tggtttcacg actgtctcac atggcgacca 6720  
 cgatgcgaac tttgtgcttg ttgacgactc gacgagtga caccggtaaaa gttggtggca 6780  
 ctgacctgga cctgtcctgt caccataact ttagcggctg cataactgtt cattgttcgc 6840  
 ttaggggcca tgtacggcaa gggggccagcc ctcaggggccc gcccagccg aagcttcggg 6900  
 tgaggggcta gcgtaacggc tcaacggcgg ccattttgc agttaggcgc agcgaattca 6960  
 gatcttaacg gtcacgacaa taaaagagat gatattattg acgacaatcc ggtaagcag 7020  
 atctatttcg gaattgatgt ttcaaccgcc acgttgacat attcgctcgc accgcagcaa 7080  
 tcatttcgag ctttgggtat cggggcggct cgggtgcagac agcagcaata agccgggatg 7140  
 acgatcag 7148

<210> 4959  
 <211> 5534  
 <212> DNA  
 <213> Aspergillus nidulans  
 <400> 4959

gaccgtcaag gtattcaaga agcccgctcg ggggtgtttg agtactggcg acgagctcgt 60  
 agacacgacg atccccggtc tcttcaggga gggcagattc gagactcaaa tcggccctcg 120

atcctatctt gcctgaaatc atgggggatt cccgccgttg atctaggtat tgcccgcgat 180  
acgcctgcgg gcgagctgga acaaagccta cgggatgctc ttcgtggagt cggaaagtcc 240  
aacaccagcg tcgatgtaat catcactaca ggcggtgttt ctatggggga gctcgatctg 300  
ctaaagccca ccattgaacg ctctctcggc gggactatcc acttcggtcg tgtctccatg 360  
aaaccaggaa agccgaccac ttttgccacc gttccgttca agccaacgtc ctctgcagca 420  
ggccaacaag aacgcagctc tcgactgac tctctctcc ctggcaacc agcctcagca 480  
ctggtcactt tgaatctctt tgtcctcccc tcattacaca agctcatcgg cctcggccag 540  
aagcaggctg cattagggcat cgcgcggcg cttggactac cccttgtagc agtaacattg 600  
tcacatgctt tcccgttga ccctaaacgc acggagtacc atcgggctat tgttacagcg 660  
tctcccaaag atggacggct ctatgccaca agtacagggg cagagggcgt aggacagcgt 720  
agttcccggg tcggtagtct agccagtgt aattctctcc tgggtgcttca gcctgggaag 780  
ggctcgattg cgcaaggag tctggtcgag gactgatga tggggcctat tgtacgtgaa 840  
ggtgctgcgg ttgcactatg acaggagcgc tcagcgtggc accaaataga acactacctg 900  
ctcgtgagta cgaatccagc cttgagggga atatagacta cttgatttgc tgctaacc 960  
tccaaagact tattecgta ctcttgtaa attttttcc agcagttaca agcggtcctt 1020  
ctctggcccc ccaggtgctt ggatagtgtt tggactcaca acctgcggat tgaatgctga 1080  
cggcatagat atcattgagg agtcgctctt gacttcaagg agaggaaact gagttccggt 1140  
ctactgtttt tcattatcag ccattggccag ttaatgattg agtattgcta cggtctcttc 1200  
tttgaacgc gatcaactcg catttagtcg ccgcgacgtt tgctgctacc gaatgactac 1260  
cttgttcttc ctgctactgt gccctttagc agggcgagta gtcatagata ctatccagat 1320  
cctttggaat aaccccagca tcaaccgat ctataaaatt agccatgcac ttccaaagac 1380  
gaatgaactc acctttatac gaccacctgt agtccccag ctgcgccttc cacgaccaga 1440  
acaccagcc ctctgcttt tcatacgcaa tcgctgcgc cgcaaaccac ctgcgtaaa 1500  
agtcggtgtt ggacgatggc tcccagtctg cagtgtgctc gacattgtca ggaacgctga 1560  
gactccactc gccacgatg gtcggccagt tgccgccag gtcgtcgaca caggaggcgc 1620  
tgatatagct ttccttatcc acggcgacgc tggagtcca cttcacatag cgggtggtcgt 1680  
cgtacgcggc gaagtaattg tctgtcaggg attgggtcgg atcgccagag cccatttct 1740

cgttcatcat ttggatgtgc aggtagttgt tgctgggtgat gccaaaggat gactcagtgt 1800  
 tgcggtatgcg cttggagacg ttagtataact ttcgcttgac cggttgggaa tgagaagaca 1860  
 gatggtctta cagtgaacgc gcttgggtag tagctgttga tcatggagga ggcctggtct 1920  
 gcgttctgga caggctcggt gactatctca agcatgccga cgttgcgga cttgttattt 1980  
 tgggtggatgc ttgtcgtcat ccaactcgagg aactccagcg cccggtcgta ctggtagtcc 2040  
 tggtagaagc caggggttagg ggcatactgc atgcatattt aataagccac tctgcaccaa 2100  
 tgtccagtag gagactgcca ctcaactgtc ccgtaaattg ctgcttaggc tgctgcgctc 2160  
 caggagcccc atgcagatct atgatgatat acatgcccgc atcacttgcc caccgcgcaa 2220  
 cgtcctcaag ataccctatc cctccttttg ggaagtgttc cgagtccgcg tagacaagat 2280  
 cctccttgag ccagtaccct accgggatgc ggattgtgtt gagcccgtac tgtaccatct 2340  
 ggttgatata gtctgcgtg atccaggacc cccagtggtc cgcaaaggcc tggtcggcag 2400  
 tctcctgccc gagagccatc acgcagtcga actcggaccg ttgccactg cagcccatat 2460  
 tgctccatgc catgctggcc atccacggct cgatgacaaa gtggctgcca aggttgacgc 2520  
 cgcggtatctt ttctgaggcc gggagccagc gtttgctgga ggcagatgtc acattgaaga 2580  
 tgtttgatgc tgcggcggag taaatgtctt tgctgatgcc cgggagccag gcgagggcta 2640  
 caggagagaga agtgaagagg gggaggatga acttcatatt gcaaacaaaa acactctgat 2700  
 agagagcccg gaaacggatt acttactcgg tctcagagcc cgatccgatc cttcagtaag 2760  
 gactgtgggg tagttacctg aaggccatga tttatactt gtaagccatc gtagaagctg 2820  
 aaacaaggga ccaacgcaca gccacccta agccggcact cagtcctgca atttggggcc 2880  
 gatcgacagc ccagaacgcg ccgacgaaac ctcatagga agcaagcctg aaacaagcaa 2940  
 agaccgtttc tccgagcttc cgctagcgca agatattgtg tcgtgattgg ctgtaatgca 3000  
 tcttcgaact tgatcgagcg gagtatgccg ctcgaggttg tgccctcagt ctggctgaga 3060  
 tcgactaggg ctctggcctc aatcgcataa tgtgaggcta ctttaactag cagatgaccc 3120  
 ttaaatgaaa aaactgtctt caagtgaggt attgttgaaa gtaaggcatc tgtttctcta 3180  
 aaagaggcct acctactagg tacctaacga gcctatctag gcacctagga tcgactagat 3240  
 attgatagct cgtagagttc ctacctagac cagataatca atccctaaaa ccttgatatt 3300  
 tcggtatctc catatcaagc gtacgggtta cagatttcgg tggccaacag caattataaa 3360

agatttttagt cttgctttat tccagtttgt tttgcagtta ccagctaaaa ggtcggactc 3420  
 gctaatacga gctgaaacgc ctcacattaa ccaagatatt gataaaactg ccaggccgtg 3480  
 gcagtttaat aggcctcggc aaaacgagaa agtagcagcc ggagttttaa gaatgacctc 3540  
 catccagaaa ggtgagcaaa aatgcccata cggggggagt cttctgtaca ggagggaatc 3600  
 tctcgacaga tataaagtta ggatccatac gaaaaaaciaa agatcttata aaaggctcgt 3660  
 ctctcagagc tcctgatatc tgggcaagac ccagaccgcg gtctgtggca gtttcagctc 3720  
 tgggagaatg agcctctgct cattagaaaa cctagtagtg cattcttgcc cctaaccatg 3780  
 tatgacgctg tccagcgaac gtacagttag tatgcagcaa aagggaacgg cagccgcctg 3840  
 ttgccaagat agccacaact gtatttcaaa aaaaggaaag ctttgacagt gccaaagggtg 3900  
 gaagattggt atgaaaacgt caaggcccgt gataggatat gatggttatc tcaccaatga 3960  
 ttagcttggt ggtctggttc aatcgactgc ggcttggtga agttcaacc tttacatgag 4020  
 gccctccctg gatcttgata ggtatgagat tctccaacc taatcaaagt ggctgggttac 4080  
 ggccggtcga ggttgatgata tagaagtcga ggtctggtcg aaagttgctg aataacttgt 4140  
 ctatatatat ggtatggtaa attataaatt ggtatagagg ttgtagatat gggacgatat 4200  
 atggttggtt tggctatcta gactttcact ggaccgattc cagtctgatg gtccgcaata 4260  
 ccagtgcac cgtcaggaat accacaatac tgttcaattg ttcagtcgaa tccaataaga 4320  
 aggtcatgcc cgggattccg caagttagag atccggcgtc gaacgggtat gatcggcaaa 4380  
 catatgcctc ggtctcggct acgaccggc cagcacttta ctgttcatac tcttgccact 4440  
 ttgagtacat gcacccgtgg cccggcccta tgccgtccta aggctgattt ctttctgcct 4500  
 tgatcctgag atcggatatca gtatatctcg gtctggtcta gtcaactcct gagccgaaag 4560  
 tcaatgacgc ggtggccagc cctagacgat catgccattc gtccggcatg gtgtccattt 4620  
 actccaactg tcgtcattca tagataggac attatagccg gtatctcttc aaccatgatt 4680  
 gcacaatctt ttgactttca gtctgatgct cttttctatt aatcgggaaa aggcggggaa 4740  
 gaccttacct ggccattccc tggaactacc agtcagtctg gggatctagg gtctatccca 4800  
 ctttgcggtg ggggtggagga aacttcgtg gggcacatgc tggggaaata gagagacatc 4860  
 gtgggggtgc ataggcgaaa cttgtaaaaa ccctagttaa gatattccag catttatagc 4920  
 aacgacgctc ccaccactgc ccacctcgca cagaacctgg ttaagccctt gaaaaacaga 4980

gaaacaagaa caatcaatgg ctgctcccca ggccaaaccg gctactagcc atgtcgaggg 5040  
 cccagaggcc ctcgacctgg acccaaaggc cgtcactaca gacctcatcc acacgggtgcg 5100  
 cgtcccttta acagaggatg acaataaggc catccgccgc aagacggaca agcgcatcct 5160  
 caccatcctg atctgggtct actttctcca gatccttgac aagaccgtgc tcggctacgg 5220  
 cgccacattt ggctcaagc aagacggaca ttgaccggc aaccagtact ccctagtcgg 5280  
 ctctatcgcc cctatcgccc agttggcctg gcagcccttc tcgtcggtcc tgatcgtgaa 5340  
 agtgcccat cgtatcttga tgctgctct ggtctttggt tggggcggtg cgcaggcggtg 5400  
 catggctgcc tgccacagct tcggcgggct gatggcgacc cggttcctgc tcggcctgtt 5460  
 cgaggccgga tgctgcccgc tgttcagtat catcacgagc cgctggtacc gtcgtgctga 5520  
 gcaaccgctt cgag 5534

<210> 4960  
 <211> 5080  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4960  
 tgcttcggag gcgttagccg cggatacata aggagtcagt agccggtcag caacagggtg 60  
 tcgggtctta gagaggcttc ggttcaggag agaataattg tccctgagaa tatgcctacc 120  
 atgcagctta cttgggcttg gggattccgc ccaccggcgt aatagtggat cctatacagt 180  
 ggtcaaactt tgctcaaact ggccgttgta aaagactact cctgaagctg atcatcacia 240  
 ccggcgata ctggtgggag cccggagccc gacttcgcc agtcgggaac cctagcgaag 300  
 ccagtctcgg gttgaaccac accgagagat acaggatatc attggcaagg atatcattgg 360  
 caggagtact ttgagaatgc ttttcatgac aggactagc agtcaataga ctcgcttagt 420  
 tcgacgccag tgagacccat agaccgcaa cccagagcg cactagccgg gcataaggga 480  
 atcggcaaac tgcttctggc ccagtcgtc ggactcagac acattcaatt ccctagttca 540  
 aggttacgcg tctgtatgtc cgagttggag gagctagctc tctcctgcg gcagggtttg 600  
 gacaggagcg gactcaaact ccattcttag ccagtggata ccaggacca tgctggatgc 660  
 ttagaatggg tctccccac accgagacc cgactcttcc ccagatttgt cgttgttgtc 720  
 gtaatagtta ggtcagggtg cagaactgaa ttaatctggg gctacggaag accaccaatc 780

tgggagtgcg cgtgcagatc aaggattgct agtttgtttg gcgagttccg ctaggattta 840  
 gggcgttcgt ttaatatctt tagtctcggg tacgagtacc attgccgtgt aaaactgagg 900  
 aatctgactt gttaagatga acagatccct ccgtatcccg tataaaagcc tgatgtgccc 960  
 gggggtatat catcatgcgt accccgcctc tagccaggcc acaaagacta agagtttgac 1020  
 gcctaatacag ttgacatatt ttatttactc accatgcaag ctttgacagag cgccggttgc 1080  
 gaactagaat gcatggataa atcgttagat agggttcggg gagcctgtga tcgatgcaat 1140  
 acttcccggg cgcggttgag cggcgacctg ccctggtaag ccacttttcc aatcagctga 1200  
 acccgaggat gagaatggtc tgacgatggg tgttccgtgg gaagtcggcg ctgcgatagt 1260  
 atgtacacca ttccggctgg atctcttcgc ttctgacaga gacagaactc aactacgcct 1320  
 gccagtatga gcgtgccgtc aagaaacgcg gtccaaaacc cagggtcccag tcgagcaccc 1380  
 accaagccag gcgcacggcc aacgctggta tacgagtaag gacctaccct tcgccggtat 1440  
 cgacagcttc tggtaaaagt ctgcctggta gtgatagagg atcaccatgc gcgaagtcag 1500  
 aacgggttga aaatgggagc tgtccgaata cgccagtga ggctgacggg ctctacttca 1560  
 gcgctaacgt ccaggatgat cacttgtacc tggacaaggc gacgaccgag ggttcagtaa 1620  
 cgagtatccc taaccgcact cactttcctc tgaatttatc gtctgttgcg atgtcgagtc 1680  
 acaagatcta cagtactccc agttgccgt atccatgtct aaaccgggtg cttccgctcc 1740  
 tgcagggaac aatgacagca gaagatgcat gcaaactcct tgacatatac tttgcggatc 1800  
 cagagacggg aggttcaatt tctggctgtc cgtacgtgct ttcaccaatc attcgagtgc 1860  
 agtcgctcct gcgggagaca aaccgcgcc cggtttcacc tgctctcctg atgataatcc 1920  
 tttggtgcgc ctctcatacg gcccatctgg gcatcttttc agattcgagt acacgtctac 1980  
 gggtcacgca acgtttgtat tttctctcga tgaagcttct gcgggccaga gactgcgaga 2040  
 cctggcatca agcagctggg aagtctccag cttgccgtat aacttctctc tctcagaaac 2100  
 agccccaaga tggatatggc tgaccgttcc tccggtaggc gagtgcgtac cactgtctga 2160  
 tatgccctta tatggcacga gcgtcgacac tgggtccctct gctgtttgtg acgggaaggt 2220  
 cgagcaaggt gtggatgacg tgctgagcta cgtcctgtta acatgcgtag tctcagtcac 2280  
 cgagttcaaa gacgaggctc taacatggtg gaacaaagct gtgcgcctgg tgaagaggct 2340  
 ggggttccat tccgaagcac gaatagcgga gaatacacct tcctggcagc agatgtcctt 2400

gactgcgcgc gaggaacagg aagaacgaag gagggcctttt tggctgggttt attctctcga 2460  
tcgacaccta gccctgtcct ataacgaacc actgcacata cttgatcggg agtgtcaggt 2520  
gctatgtcca ttgcctgaac gagtctggca aaatcttgac aagataccgt tggaggatat 2580  
cccaccacgc gtctttgggc ctccgacttg tataacaggc accactttct tcgaatactt 2640  
ctccgacaag ctcagtcgca gaaaacaata ccgaatgggtg gcttgggaagc gtggctgagt 2700  
gtcgttgggg ttttctgtgt tttcgttaat tcctggtagg tatgtcacga cgtctagcaa 2760  
tcgtgcacgc aatctaacag cggctcaggg gcttgatcag tacatatggc gccttccaag 2820  
agttctacca aacggtaactt ctccccgac aatccccctc ctccatttcc tgggtaggaa 2880  
gcctccaagc cacgctcgtg gtcattggtt gagttgtatc tggaccattg gtcgatcttg 2940  
ggtaacctcg cctctcatt atctcgggga gcttccttgt tgtatttggc atgatgatga 3000  
ctagtctggc taccacaatac tatcaagtga tccttgccca gggattttgt gtcggcattg 3060  
gtggcggaat tgcatacatt ccagcactgg tcgtgatttc gatgtatttc actacgaagc 3120  
gtccgattgc cattggctgt gcatcaatcg gatccagcgt aggcagtgtg gttttcccaa 3180  
tcagtgttcg ccagctccag ccgaagatcg gcttcccggtg gacgggttcg tgcacgctt 3240  
tcatcaatat gttcctcgtc gtcattacct gcacgatgct atgccgccgc ccgggcgaaa 3300  
aggtcggagc ccgcagcctg atcgactgga aagctctcaa agatatcccg tttatgttgc 3360  
tatcgggtatc gatgttgctc gtcattgctc gctattggat cccgctattc tacgtcccg 3420  
cttacgcccg aactgtgctg aatacaaaa ccagcctttc tttctacgtg gtatccatta 3480  
ttaacggcgc gtcggcgctc ggacgaaccg ttccatattt attgggatcg cgagtgaaac 3540  
ccattggcat tctcattagc tgcgtggcgg gttcggcaat tgccatgttc acatggattg 3600  
cggcgaccaa tatccttggc ttcacgtttt ggtcttgcta ctgggggtttc ttgacggggg 3660  
tgctagtac tgcgccaaca tcgattgttt cgcaccttc cctttgcccg gatttgaaga 3720  
tgctcgggac tcggatgggg atgatgtggg ggatcagctc gctcgggtcg ttggctggga 3780  
caccattgc cggagcctta gtagatctca ctgaagccca atttctgcgc gctcaggtat 3840  
tcgcaggctg catgatgggtg ggcgtgttg ttctacaatt atggccaaca tttgtggctc 3900  
ttcggcacga tggcaagccg gggggtactc agtaatgttc tgcaatatgc caggccccta 3960  
aatgtatat ttaatcttgg cttacatcac agacactacc actacacacc cacttccgcc 4020

tgccttaacc gctcctcctc cttgatcttc atctcatgaa acctcttcag gcgcgccggg 4080  
 acaatcctct cctctccgt cgtaatcttc cacccttca atcggtcctt acctagagcc 4140  
 aaaagcgtct tttctcgac caggctatac ttgctcggat cgtctcggtc aaaattgaag 4200  
 ggctccttca gagcaaccgg tgggtttgtg atgatgcgcg gagtcggag gatgttcgc 4260  
 gacgcagagt gtaacatcag tgggtgcatt aggactacat cgcctgtttt tcccgtcatc 4320  
 tcgcggaagt ccgtgcattt ctggaccaag tttgtgtaaa aggataggcc aggttcagca 4380  
 tctgggtttt gggattggac ttcgcctcga ggaaccatgt acggtgatac gccttcgggg 4440  
 tgctcgtact gtttgaatat aatagttaga cagcagataa tgggcagaaa aggacagaca 4500  
 agactacgca aggccccgtc atgtgtgccc tggccgtgca tatgttcagg aggggttggg 4560  
 caccaccag ataccgcgc atcagtggta tagcctcggg acaaatacata gtcgcccctc 4620  
 ccattggcgc tatatccgaa aacaacggaa taacgagcag cgctgctct ggagagtcga 4680  
 ggaaatgccaa aaagaaatct ccatcaacat gccagttatc cagctccttc ggatcgggat 4740  
 tcttcatccc ttcatttcc ggcaaccca gattcacaat caaactgtca cgccagctac 4800  
 caaactcctc agagattcgg tcttcccccc cacagagctc gcagatcgcg gccacgcct 4860  
 tgggcgcaaa cgtacgaact gcttctccc gatgggtgtg catgttaata cgctctgatg 4920  
 tccaggtgga tttgtccgc ggcgagtacc caagaccggg accagacatc ttttgggcat 4980  
 gagagggcct tttcgcgca aagcagttgg gatcaccacg taaccgtgct gaaggaagtg 5040  
 gctttctgga ctctggaaaa ccttggggac cccgttcgc 5080

<210> 4961  
 <211> 11234  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4961

aaagtgaat acgcgatact taggtctgat ggtgtctacc aaactaactt atattagcca 60  
 gtgactaaag aggactatga ttgatggact atgatcgtga gatgatccag ctgtcacacc 120  
 agagtacaat aatgcagggt ctctggatct ctatgccaat ttaccagcc ccatcgga 180  
 atttccccct ccgttgatcg aaggtcagca cattacagga ctctcaagaa atatggagtc 240  
 ttcatttgaa agaaaagaat tagctagtta gcgctctgct gacttttata aattgtctcc 300

ggatcttcca ctgcctaate acctcccca cgcagcttg ggaacccgtc aagcctcctg 360  
 tttgatatac gggattcccc tcaatttgaa cgtcatctcg ttcaaaatag gttcctgaac 420  
 tggctctctt cggctcttgg gacaaggctt cccattgcgc atagcgacat tcgttccaac 480  
 gtgcactgca ttcggccagt gcgtagttcc caaacgagct acatcggtta gctgctactt 540  
 aggcaaacga gcattctata accatggaaa caaaagttgt aggtgtgtac ataccctcaa 600  
 acgccttttt ctctctcacc agatcctect ggctggcatc ggcgactggc atatagcacg 660  
 tgtataccgc gagcctgtca ttcttccccg aaggcggaag attgtagtgc ggcacgcggc 720  
 tatcccaaac tatcagatca ccaggttctg cgcagacctt gaccattttt aggccatggt 780  
 cggctagcca ctttatccca ttgtccgtga agccgaacca ctctggtgtc cacgcgggga 840  
 tacgtggctc attagccatt tcaactgtgaa actgttcgga gattttgtgc cccccgggc 900  
 agacgatcag gccgccatcg tcggggccgc aggggttgag gttgacaagg ccttgaagac 960  
 ctgaatcaat aacaactgtt agcagcgtct aggtaggcga gggtgccaag gggccgtaca 1020  
 gcggaagccc ggtttagctg ggtcttggtc ttgatggggc catggcttgc tatgtcgggt 1080  
 tagcaaateg ttcttgctgt tgtgcatagt tatcagcaag gtagcgggca tacttttcag 1140  
 gcatctcctt tcggctataa cgaagacatg tcagttcatg cgtaaatcgg tgtgggacag 1200  
 agtgacttca tactttgaaa actggacatt aaccacgtca aacgaaacga tcagatcgtc 1260  
 atcaccatag accttggcaa aggtatctac gacacttggc tcaccgcgga tatcccacac 1320  
 ccacttctcg tgggtgacgc catatgccaa aatcatgccc ttttcattga tgacgggcag 1380  
 ggttgacggt ttcaccgtcg atgggtcgtc gcggcgatag ccgagaccac tattgcacac 1440  
 tcagtgtccg acgccgagca aggcagccag aatataggag acgtacaaac cctccaagta 1500  
 gttatagaac tcattccgct acttggttgc gcggtccagg ggaatcgcg ccttgataac 1560  
 ggcgtatccg tctcggttca aggcacgcg gaagtcgccg tagtttggtg gcgatccatc 1620  
 gagcgccata cgagcctttg gccgagttcc agtgacggtc acaacaggac tgccttcggc 1680  
 tgtggtagtg gacatattga cactgtttgt tcgctccact gaacgtggga aggtggacgt 1740  
 aatgaagct gataaaatga atgaaccagt ttgtacggtt ttttatctgc cccaagttg 1800  
 ctaaactcct ctccctgaaa tggactgcag tgtcggggct cggttgctcg gtagggtaga 1860  
 gccaggaagg cttcggctgc cccgaagcc gccgaggcta agtagtgagg cccgacgata 1920

agcctctcat attcggctcc acctgtgac gcattgatct agatgattga ctctgtgaca 1980  
 tatccgcatg tacacacaat ctgaacactc gggaaatggg cttcaaggtc atcggttggtg 2040  
 gcggtggaat agccggcctc gcagcggtag caaccccttc caagtttgca agaacaggct 2100  
 aacacagaca gtgacaggca atcgccctcc ggcagcatga caggaggta accgtactcg 2160  
 agcaatctcc catcagcgaa gagattggtg ctacgatatc tctccagcca aacgcatcaa 2220  
 aaattggtga aggacaatgg ggcctggcgg cgaagcttaa ggagcgcggc tccatgggtg 2280  
 acgaggcttt caaagtttat aatctagatg gagaactgca gctgcatata cctctccaga 2340  
 caaaaggaaa gtacggcgcg gagagggtga tgtatcatcg tgcagatctg catgaggctt 2400  
 tgagagagcg ggcaacatcg catgcattcc ctggcaaagc ggccacagtc cgtacttcaa 2460  
 gcaagggtgt caactgtaat tgtgaagaag gaactgtagc gctagccagc ggagaggcca 2520  
 tctctgcgga tctgatcggt ggcgcagatg gcatcaaaag cgttggttcgc gaatctgtcc 2580  
 ttggaaagaa agtcattgcg cggcctaccg gactctctgc gtacagaatg atgatctcag 2640  
 cagaatccct gcaacgggag gccgactttg ctaaagtcac tgatccacgg aggggatgca 2700  
 caacaatggt gatcgcccg gacaggcgct tgatcatggg tcctgcaagg tgcggcacga 2760  
 tctatggcat tgttgctctt gtgccagatg agaatatgaa tgaagatcca acaagcacga 2820  
 gctggacaac aaaggagat cacgataaga tgatgcagtc cttcgcatg tttccagact 2880  
 gggcacaaaa gcctctctc cttgcaaat catccagcct agggctctgg cagctccgag 2940  
 acctggatcc tttgcatacg tggatcggtg gcagagcgat cttgatcggc gacgcagccc 3000  
 atgcgatggt acctactcaa ggccaaggag ccagtcaagc gattgaggat gctgaagcgc 3060  
 ttggagcggt ctttgaggag tttgagaaat cagcctcagc caacgctatg gatgctatag 3120  
 ccagggtgaa cgaagctata ttcagatgca ggtatgatcg gacgacgaca attcagttgt 3180  
 atagccgcca cgctgctaag ccagcctcgg aacctggaag tcgccgggtg catatgaacc 3240  
 ctgcagagtt tatggattat aattgtgctt ataacggtgc gctggactgg caaagacggc 3300  
 aaggggtcgt attgcattag cctagccagt ttatttctct tcagggtcaa attccatagc 3360  
 catctctccg gtcgataccg ttgcactcca tccccattc atcgcaaagg tcccggatac 3420  
 ggtagtcggt gaaaagccca aaatcgtctc ccatgtttcg tagcatctga agtatgtcac 3480  
 ttcgttcttg aggatctggt aagtggcgac cggcgacata aagcggttgt agcatgtact 3540

tttgaactct ttcgctcggc attgcttgca ctatggccat gatctctagt gcatgctttc 3600  
 ttagctcctg ttgaagcgca ttacatgtcg ctattaatcc attctcgata ccatgtggcc 3660  
 gaacggctat actgtttggg cggttggcaa gaagaatgat ccgcgacata tgatagaaag 3720  
 ccacagtcac agcacaaatg tcattcgcga accatgtctc cctcgatata ttccccctcg 3780  
 agcaagggtc tatactatct ccagggttag gccattagg agtccaggta ataggaatgt 3840  
 agaacgatga cggcacagca ccttgccaac gatcatattc ctactgatc aaagtccact 3900  
 ttgtggcatt gccaaaatct aaattgacca ggcggcacat taaccttata agagccttga 3960  
 aaagaatggt ttcaaataga ccgtcatgtc gagtttcggg cagaagggtg ccgtatgcat 4020  
 caaccggaag gcccatTTtg caccaaagga caatgtcgtc gggatctact cgagtcttac 4080  
 gttgcgtaac gactagggtca actgtcagcg atattgtttc cgcatacact aataacatac 4140  
 aggcatTCag catatcattt acgacgaaga accaaaaggt cgcgtcaagt gccctcgctg 4200  
 gctgtgggat tgtggcgcag aggtggaaaa atggagggtc tggaaagtga ggtttgaaca 4260  
 gccgaaagac tccgtcgatg tgccctgacc aggtctctgat tgtagcattt acgtcctcgt 4320  
 attgacataa aatgcaggct gctataatct ggaaagacag actctcttca tcgtttccgc 4380  
 atgcgggctg gccgttggtt gtccccacgc cgtatacatg acctggcaat ctcgagtacg 4440  
 tccccctgtc cctgctagaa agctgtttgt ccagtagctg gattgccttc tcataatatt 4500  
 tggccccgta ccaggtaaata ccaagtttcg agtcaatcag cgctttcatt atcgacctt 4560  
 ggacattggt ctgtcggatg tgtgattccg ggtgcctagt ttgaccaagt tgctttgcag 4620  
 ccaaggcgca ggccgcgtag cgtactagtg ggctcttgtc agatattgcg acgacgttct 4680  
 ggctaaagta agactgatca gtacaaagat ccatccattg tccaggacct tcgcaaaagt 4740  
 ggcaagaaa gaaagcgggt tcgcagcggc cgtggtaagt ctctccagcc tgggttgctg 4800  
 catcctcagg acgcttgctc atgctcgcta gtgacactct ctccgtctgg acacgcttag 4860  
 gtagaggcgg gatggtcatt gtctctgcag ttagggcacg gtcacctga tatagtggat 4920  
 gtgtgcgcgc ctactcgggt ttgtgtcca cggccttcgg tgccacagcg tctttctcta 4980  
 catagcacat cagcaattcg taagcataca ttttatatta atttggtgat caccattcag 5040  
 cggattagtc ttccgggtca acccttcgtc aacatccttg tcttcagcac gaacagcacg 5100  
 agcatccccg gatttcgggt ccggcgacgt ctgcgctaga aaggatatagg aatgcgggtt 5160

gaacaagcta tcaacaatcc gacagacgcg accagtttta aggcactgcc cacattgcgg 5220  
 cgtctgttca tgcacttga tcttcgact tgcactcg ggactgaata tgacgtatca 5280  
 gtcgttagca acaatatccc gccagatggg ggctgagtgc cgaccatcct ttcgagacc 5340  
 gtgccccccc tttggtgcg gatctgattc cagactgatg acaggtcac taactgcagt 5400  
 ttcgtacgat tgtaattgcg gaaggcgaga gggaggagac ggtggccgtc taccgttctg 5460  
 cggggaaccc gtcggtatt atgccgcac gggcatcgcc tgtcttgtct aggagcaatt 5520  
 tccccgtaa catggcgctc ttttgcttcc tcggaagaag catttcttca gtgtagtcaa 5580  
 atcatttcag gtataatcgt cagccatcac tcttcttact ctctgggtct ctcagctcta 5640  
 gagcgacatt agctcccttg gttttgtagt ggcagtttcg ccggcaaaat atatatccct 5700  
 aggcattttt tagccgggcg acacataata cataatccca cgccgagatg ctcaatgaag 5760  
 gtgatagatt gctttctgtt gcaattacag ttgagtttac ttccttgaga tcatgacaga 5820  
 cccgtgacaa gtctatgatc agaactcgaa cccacgagct gggtcgtggg tcagaacctg 5880  
 taccctaaac ccgcggtgag ccgcaagacc catattacat agaatctcca cattaggcta 5940  
 catttctgc atagaaatcg atgatttctg catggtagat ttatacggca tgtttgact 6000  
 atttgccaac ccgcaagttt agacactgta accaagcccg acccgtcgta ggtaaaccac 6060  
 caatatccaa ggtctacttg caaatgtctc ttacaaaggt cggcatgata aacttcagca 6120  
 cacaaaaaga actcgatttg aagtagcgct cgcagtacag ttaccatgaa acttcaagga 6180  
 gcgactgaag ctacgaactg attctgaaca ctggggccaa ctctggctct ctctacggag 6240  
 gccgtcggat agggcttgat tatgcaagtc cagatttgca gctgcagact cggaagatga 6300  
 tggtgcaaga ttatgtcact gcgagagcta atggccttac ctggaattga agtaagcacc 6360  
 atgtgccaga cctgtctaa cccaataaaa gaagcccctc cctggaatcg aacacaattc 6420  
 gcgttaccgg ttgctcttga ggtagcttgg aaggatatgc tactaggcat ctgtcaagtg 6480  
 gcttagggag ggagagcgtg gttctccttg atggttatat tttcatacat ccttgacagc 6540  
 ctttccccag aaattacatg ttcgacagtc attccctcta aattacagta ttattgtcta 6600  
 ttgatacgga aatgtcatgt ggccttcac gcgtacacct ggagtatacg ctgaggcctg 6660  
 gcttacgcca cgtgatataa gcggccta atctgacctc tctatgtatt gtaccgagag 6720  
 agattgaaga ggatatttat cgtcattaag aaagagagaa tcaatcgtca tatggcgccc 6780

gaccccttagt	aggctacgtt	cgtgtágttg	atacagcttc	cttctgccct	ttcccattga	6840
gcgttcacaa	catctatgtt	aattatgcat	acaaagaata	taagtcttga	cggagaggcg	6900
agctctaaca	tgacatgttc	ggccagggaa	tgggaggcac	gttatgaccg	catcagataa	6960
gtggacttta	gggtttgccg	acttggcctg	acccaaaggc	aattttgaat	ccaaaagggt	7020
agtgactcag	gtaagctata	caaattccagg	gtggtaatct	cgcagtaatc	tgatggtaca	7080
agtaacttgg	cctatatttatt	ctctgagaac	tgattggtta	ctaaccacaa	accaatcaga	7140
gaagctatat	actcacagcc	ccattctgac	agtgccttacc	cctcgatgat	ttctgacata	7200
gatggcaacg	acatcaactt	cctaggccta	tatttttttc	atccgcgaaa	cagccgccct	7260
atcgtactgt	tgaattgctc	attccttaaa	gtcttcagat	ggatcctctg	tcatgcgcgg	7320
ccagcgtgac	tgcagtcatt	caactggctg	gcgctcttgc	agacgtctgt	ggagaatata	7380
ttaaaaaagt	cacgaatgcc	caaaaagaaa	tcaactacct	aatgaagag	atcaccagac	7440
ttatgagaat	actagagtcg	cttaatggca	tgcttcaggg	acccgacagg	gaaaaacttg	7500
ccgcccttca	caagatatct	gatgacgttg	gaacttgcaa	ggtggttctt	gagaatttgg	7560
gaaagaaggt	caatccagaa	aatacgcaaa	actccttcag	atggcagggg	tttcaagact	7620
ggaaatggcc	cttgcagagc	caggaaatag	atgatgctat	tggccagtta	aagaggtata	7680
catcactctt	tgtggcagca	ttgcagattg	atcatgtgtg	ggttgcagat	tacatatgct	7740
gtttctttta	cggaataactt	acttctacct	taggggattt	actgaccag	ttgaacaaaa	7800
ttttgacctg	catgacctga	aaatcgtgga	agaggccata	catgattcct	ttgagaacaa	7860
aatgaagag	tgtttccctg	aaaccagaac	cgagttactt	cgtcaagttg	gaaactgggc	7920
ggaatcatct	cacggaaaat	gcatatactg	gctaacaggt	gaagctggta	ctggaaaatc	7980
aacaattttct	cggacagtag	caaggcaact	caaagaaaga	aagttattcg	ctgccagctt	8040
ttatttcaga	cggaatgaag	agggcagaaa	taacatgaaa	tcgctttttc	tagcttttgc	8100
acagcagctg	gcgaatgctg	tacctgacct	gggáctagag	atcgagagaa	ctgtgaaaga	8160
tgatccttat	atatcaggaa	aggcacctgc	ggaacaattc	agaaaactca	tacttcaacc	8220
cctcatgact	atggatctag	agcccgttat	cactttgggtg	gctgtaattg	acgcattgga	8280
tgagtgccga	tcagatgctg	aaaatgatga	tcatgacatt	agggttcttc	tgcgcccttat	8340
acctcaagtc	caagaatcag	agtctgtacg	cctacgattc	ttcatgacca	gccgacctga	8400

gctgccagtc cgccttggct ttaaagctgt tgaaaacagc cttcagaaca tggatcttca 8460  
cagcatccct tcatcagaaa caactcgtga tgtttccatt tttctggagc attccctcac 8520  
ccaaattcga gggactcatg gtcttctctg agattggcct ggtgaagagg ctataaatga 8580  
ccttcttgca aggacgctgc cactttttat ctctgctgct actatgtgtc gcttcattag 8640  
cagcacctat gacccccagg accgcctcca gaaagtctg aatgacaaaa ccagctatgt 8700  
gtcagaaatg gtcgaacat acttaccagt gcttaatcaa gttctagctg gtcaaaatga 8760  
gtgggaggct gcgcgattaa atcagagttt caaggacata gtagggccgt tgatcgccct 8820  
tgctactcca ctcccagtc aacgcgtctc gcagcttctt gccttgaaat caagcatcac 8880  
atccaacat gtcaaaagtt tgttgaactg ctttcattct gtattaatta taccgataa 8940  
cccagaattg cctgtgcgac cccgacatct atcgtttcgg gattttcttt tcgacagcac 9000  
aaccaaggat aacaagcaga gcgagaagtt ctggatagat gaaaaggcga tccaccagaa 9060  
gcttagtgat cagtgcctca gggttatgga gagcaagttg aaaaagaata tttgcatgtt 9120  
atccgatgat aactgcagc gaagtgagat cgattctaac tcggttaatg agcatctgcc 9180  
agtagagtta caatatgcgt gccggtactg gactcagcac atgatgcaa gctggaaccc 9240  
agctggggct gttgaaaaag cgtgttcatt cctaaagaaa tactttcttc attggatgga 9300  
agtgatgagt atcctgggcg ttatgccga ggttattaga gcgatatgta gattacaatc 9360  
cggcattcaa gtaagtaatt cgcaggtaat tacagccctc actaataaga agatcaggac 9420  
gataaagact ccgaactgtc aaaattcctc tatgatgcta ggcggtttgt cctcaacaat 9480  
cgacatttag cagagactgc accccttcaa ctttactcat caggcctgat gttttctcct 9540  
gaaggctcaa tctactaggag aatattcaac tataatctat caggctggtc ccagttacct 9600  
aaggtcgaac agacctggag tgcagagcag cagactcttg aaaaccattt gggaccgggt 9660  
gagtcggttg tattctcacc ggatggcaag caactagtgt ccggtcttta tgatgacacc 9720  
gtcaagatct gggaccctgc cacgggcgag ctgctgcaga acaaggatgg ccattctgga 9780  
acagtcgagt cattggcctt ctaccagat ggcaagctac tagcatccgg ctctatgac 9840  
aacaccatcg atctctggga ctctcccaca ggcgagctac tgcagacttt tgaaggccat 9900  
cctcattcaa tttggtcagt ggccttcgca ccagacggca aggaactagc atccgcctcc 9960  
gatgacagca ccatcaagat ctgggacctt gctacgggag agctgcaaca gacccttgac 10020

agccattctc aatcagttcg gtcagtggca ttctcgccag atggcaagct attggcatcc 10080  
 agctcccttg acagcaccat caaagtctgg aaccccgcaa cgggcgagct gcagcagagc 10140  
 cttgaaggcc gatccggttg ggttaaactc gtggcctttt caccagatgg caagaaatta 10200  
 gcatctggct ctgagaaaaa caccgtcaaa ctctggaacc ctgccacggg cgagctgctg 10260  
 cagactcttg aaggtcattc tcagtcagtg cggtcagtgg ctttctcacc agatggcaag 10320  
 caactagcat ccagctctag tgacaccacc atcaagctct ggaactccac cacgggcgag 10380  
 ctgcagcaga cttttaaagg ccatgatctt tggattcggg cagtagcatt ctcaccagat 10440  
 ggcaagcatc tagtatccgg ctctgacgat aacaccataa agctctggga cttgctacg 10500  
 agcgagctgc agcaaagcct tgaggaccat tctcgcagtg ttcatgcagt agccttctca 10560  
 ccagatgaca agcaactggc atccagctca cttgacagca ccatcaagct gtgggactcc 10620  
 gccacgggcg agctgcagcg gactcttgaa ggccattccc aaggagtctg gtcagtgacc 10680  
 ttctcaccgg atggcaagtt actagcatcc aactcttatg acggcaccat caaactctgg 10740  
 aacccttaa cgggcgagct gcagcagact cttacgggcc gatctgattg ggttgactcg 10800  
 gtggcatttc ccagatgga aagcaactag catctggcta ttatgacagc accatcaagc 10860  
 tctgggattc cgccacaggc gagctgttgc agaccctga aggccattct gaccgtattc 10920  
 aatcggtggt attctcacca gatggcaagc tactagcctc cggctcctac gaacaaaccg 10980  
 gccaggtttt gggatccgc cacgggcgag ctgctgcaga tcttcgaagg ccattctaaa 11040  
 tgggttgagt cggtggcctt ctcaccagat ggcaagctac tagcatccag ctcttatggc 11100  
 gaaactataa agctttggga ccctgtcaca ggtgagctgc tgcagaccct taatgaccct 11160  
 gatgaatcag ctgggtcagt tgccttctcg ccggacggaa atcgactagc atccgtcgat 11220  
 attttcgaca ccaa 11234

<210> 4962  
 <211> 4994  
 <212> DNA  
 <213> Aspergillus nidulans  
 <400> 4962

gactaacgac tgacgttgca aatgtgacca ccagctagag ccagccgatg attttttcgt 60  
 aaaccattt ttccatggg ggaaggttct gcggattgag cgggtcgtcg gggccgctga 120

acacgaccag gtttgggtct ggcgcctctt tttctatagt ggtggctata ttgttgggtgg 180  
 tgctgccact gctattgctg cctctggtac cgatategcc gctgctgctc ttagacgtct 240  
 cggtcgtggg ggtggttggc gtcacaagct ccattgtgct gttgctatgc agcgcccgtc 300  
 ggtggtaggc actttctgcc tcaggcatgg cagaaggag atcgggctca gacatgctgg 360  
 ttacaggccg gcctacaata tacagcatgc agactgctat aagccgggtt gcgtaccgaa 420  
 agcgaatgac tggcagctga ggggcagata cgacttgatt atgggcgggt gtttatttcg 480  
 aaagagtaga gaaaagcgtt gctgggagtg agtgcacca ggtatgggac ggcggcggag 540  
 ataaccgtcg gcctaaagag ggatgaaaaa tgaggatcag gacgaggacc gagaaccagg 600  
 gactagaaac ggacctcgat acgctagtgt cgatcttatg cagagcctcg attgacatcg 660  
 cccgtaagct gacgcgtttt tataggttgc tctttggccc ggctagagcg taatccggtc 720  
 ggagtccggc ttaaagtcgg gttagggcta tatcaggcgt agcagtctcc cagtgtctct 780  
 cccaacgcag ataaacgcag ggtaaacttc cacctcacct cgacttgcta atctccctct 840  
 acagctagtt atattttttt ttttttttc gaaatgtcgc tcgccgaaa agtcgctctc 900  
 atcactggtg cctcgaaagg catcggcaga gcgacagcg agcgcttggc tagcgaaggc 960  
 gccagcctgg ttatcaacta caacaccgac gccgcctctg ccagggcgct cgtggacgaa 1020  
 atcggccagg accgcgtctc cgcggtgcag gcagatgcct cgaaactggc agacattgat 1080  
 cgcttgggtg acgcggccgt ggccaagttc ggcaagatcg acatcctcat cccaatgcc 1140  
 ggtatcctgc ctatgcgcga tctggagcac accaccgagg aggactttga ctttacctat 1200  
 aatctgatgg tcaagggacc atactttctc gccaggtgg gttcatgatt tgcttattct 1260  
 tgttcattcc aatcttgttc tattttatgc tgcttttgtt ctatttttac tcctttcatt 1320  
 gtgtccacg agttggttgt attctttatg ttatttggat atcctggctc gtgtctaaca 1380  
 ggcacagaaa gcagcaaac acatccccgc tgggtggacgc atcatcctcg tctcgaccgg 1440  
 tgtgaccgtg ctctccaaca ttgccccagc atatctctc tacgcctccg ccaaagcagc 1500  
 cgtcgagcag atggcccgcg tgatggcaa ggacctcgca cgcaatggga tcctcgtaaa 1560  
 ttgcgtcgca ccaggcccta cgactacagg gctcttctg aacggcaagt cagaccagat 1620  
 gctcaagatg gtcgcgggat tcagcccgtt caaccgcac ggtgagccgg aagagattgc 1680  
 aaatcggtg tacttctct gtagtaaaga cagcagctgg gtttcgggac agaccctcag 1740

ggtcaacggg ggaatggcat agaggacgct ggtcttttgg cccgcttatg attagcaaga 1800  
 atttcatttc caaaatttcc tcccaagttt ccttccaatt gaaagcctcg attgaaaacc 1860  
 tcctactaaa aactccaatt aaaatcctca cagctgaaga tatacaaata ttccggctgt 1920  
 tcatcttcgt actctgaccc ctaggattca ccgtacgacg catgggtact ctgtactcga 1980  
 tgggtcgtat ccgggtccgc tcgaccattg gctaagtcca gggacccctt tggtagcgca 2040  
 agagcatcca cataataaat ggtccaaggc caggaccggt gtgttgcat ggtaccgagt 2100  
 cagcttcctg ttttctaaaa gagaatatta tcatggcaat ccttgtacgc ctcttcttcg 2160  
 ccctctttgt cgtctccgtc tacttcttcc gcgtacgcct gcgcctgagc cacatccctg 2220  
 gcccgttcct cgcttctctg acaaacatta accgtcgaca atgggtgacg actggtagag 2280  
 cccacacgat tcacaccgag ttgcatcgcc agtatggcaa ggtcgtgcgc gctggcccaa 2340  
 ataccgtctt tgtatccgac ccggctgcta taccagccat ctatcgggtc aacgagccat 2400  
 accagaaggt tttcttctt acacatatta ctttcgacg caaatcaaac aggaggtcg 2460  
 tgctaattt catttatcat tgttctcgat gcagtccgag ttctacgacg ctctgatgcc 2520  
 ctatgttcgc ggcaagagca tccccgacgt cttcgccacc agagacgagc atatccatcg 2580  
 gacaatgaag caaccattg cagccatcta ctccatgtca aacctcgtct cgtttgagcc 2640  
 gtatgtcaaa tcaacgatcg agtatttctt ctgcgggctt gacagtctt tcgtcgagac 2700  
 tggcaaggtc tgtaatttcg gcctctggct gcatcttttc gcgtcggatg tgatgggcga 2760  
 gatcacattc tcagacgac tcggtttcct ggagaccggg ggcgatatgg agaacgtcat 2820  
 gggaacaac tggaaattct tcgttcaggc cgctccgcta cggccgataa gtctcttgat 2880  
 ctttttgat cggagggaa gctgactgaa ggctgtggtg tcctaggcga cgcagatgcc 2940  
 ctggctcgac tacttctgga aacggaacct cctgcttcca ggcagtgtca aaccgaacaa 3000  
 ggtcattgag tttggcgctg cacggattca agaacgactt cacttgctcg aaaagcatcc 3060  
 agatcatgtg aacagcaggg attttctctc gcggttcatt gcagccaagg agaagaacag 3120  
 ccagatcggg ccggagtaag ttctaacttc ttccctactg accactgaag tataataaaa 3180  
 gcaaaaatgc aagattatat tgaaacgtct ggcagtgtca tcatgacctg ggccaactcc 3240  
 aacatccaag ccgggagcga cacaaccgcc attctcctca gcgcactctt ttatcacctc 3300  
 ctcaagaacc caacgagtct ggcggcactg tgactgaga tcgacgccgc cgccaagagg 3360

ggctgtttat cctccattct gacgtggaaa gaaacgcgcg atctgccgta cctcgatgcc 3420  
 tgcgtgaaag aagcggccag actacacca cccatcagtc tccccctcga gcgagttatc 3480  
 ccggaatccg ggactgtaat cggcggattc aagatccctg gtgggacgag ggtcgcgatg 3540  
 aatccgtggg ctgtgcatcg tgaccgtgac gtattcgggtg cagacgcaga tacctggaga 3600  
 ccagaacgat ggctagaggg ggaggagaag gccaaagacgc tgtacaactc gttgctgacg 3660  
 gttagtcttt caactcggtc gaggaatagt cactaagagg tctttgctat agttcggcgg 3720  
 aggccaccgc tctgcctag ggaagaacat ctctacctt gaaatttaca agctggtgcc 3780  
 gtcgatattg ctgcgctatg aggtaagaat tcctagccat tatctataaa gatctagtag 3840  
 tgacggctgc agattggact ggctgagccg gagaaggagt ggcacttgga gaaccggtgg 3900  
 tttgtgatgc cttcaagggt ctacgttagg ctgaaggcaa gaaacggggg gactaaacta 3960  
 tgagaaaggg agggctgac tgtaggtcgg ggggtggggtg aaatagaata gatcagaggg 4020  
 tgtctgctat atttcagtgg gtgtatatgg ctattcaatc gatttcggcg ctcgtcatta 4080  
 tagaaatgtc tcaacaatat tggtttgaca ttatgaatag gttgatgaag tagtctgaga 4140  
 agccttttgg gctcgtgaa cttcagaggt agttgcacta atgcaccatc tggttctact 4200  
 atagggtttg attttgtctc ggccctgacc atgagcatag gagggttcac cttttcaggc 4260  
 cctagaacgc tatactcggt gtactttgtt ggccgctctg ttgttcttta acatgatgag 4320  
 ttttgagct gctggacgaa gctgggtacg attcggctgg tgagccggtt cttgggagta 4380  
 catgttctc cccaagatct tacctttacc cggccatacg acggcaagaa aggtatccat 4440  
 gtgatccatc cattatcttt accgagagac tccatggaaa ataccacatt gcggcactgt 4500  
 gtggttattt tcaactgatg gatgattggc ctacgttagg gctagcataa gtaaagctaa 4560  
 aaaccaacaa tcttcaccg gttgcgaaca catagcattc cacgtggcac gcatgtcttg 4620  
 atctctgaat ttaacagggg caatcctgat aatcaaacaa gcgccccaga cacacactgt 4680  
 cgtcagcagt caaatccaag aacatccgaa tatgctcaa attcagcgca catttctctt 4740  
 cctgagccag gagatgcgca gtgcggacga cattcttagt ctgcctgtag ttcagcttca 4800  
 actttgccag ctggtcgagc tcttcgtcgg agaatcgtgc ggtgttgggc ctgctgagga 4860  
 cttggctcca gatctggcgg cgggagactt cattgagctc gggatttga tatgtgaata 4920  
 cgcgattcaa acgctgggtt catctgctcg gctcgattcg tggtaggaa taagatcact 4980

ggtaaagtta gtgc

4994

<210> 4963  
<211> 6958  
<212> DNA  
<213> Aspergillus nidulans

<400> 4963

ccggggccttg tctcgaatcg gcccggggga gggcggttga agaagcctct gcttgaacag 60  
tgcaccaaag gttaatagaa cagcgtcgga gtgtgcggaa ctgatccaag aatccgatca 120  
aacttggact atctcctggc tgacgcgatt tcagtgccta gatgaaatgg tctaggcgtg 180  
ggattctggc gttcgggtctg ggacggacat cagaaaaaaaa aacaataaaa acacagcaaa 240  
agaaagcaag ttgaatatgg atatagcggg ataaatgaga agcaaagaaa gaaaaaggaa 300  
gatcgccaca gcctgggttg gatgaccggg gcgatggaga tgagggtggga aaaagaagga 360  
gagagagaga gagagttaa ggttgagggc gaggggagga attccaatcg tgagagttac 420  
ctgctgtcac ccagattctc agtcacggac ggaacgcttg gtcgagtcca ctgtcccgca 480  
accgcacccg agttattata aggattaaaa tattattagt atccttatgg ataggtcggt 540  
tgaggcgaaa caaggacgcc caggaacgga tagtgatttc agcctgcagc cagcgaagat 600  
ccaagcaagc gaagtaggcg aataaaaagg gtcgaacgag gttatccagt gagtcgtgac 660  
ccgtcactag tcgcgttttc tgtttggttt gtgggttcaa gcttggggttg tgtggatcga 720  
tttctgtctg cgctgctgtc ttccactcgg gaggcgtata cggaggcagt gacttgaggt 780  
ctgctcgccg tcgaggcca ggtcaaggtc ggtccaggtc gcggattgag agtgcggtcg 840  
gtagtgcggt atgtagtatt gtgaagaaac aaggggcttg tgagcgagca agaattgat 900  
tatccaggga taatgatgat atctttgaag actcgggagt ttcacaacat tcaacatgaa 960  
cgcccgcgag cgccgcaggt ggtctatata ctgcctggac agaggactt ctggcacgag 1020  
cgtgcctgta aatcattcta ttttctgcct agaacaaaac cccctattc ttcttaggtt 1080  
ttgggtctcc tgggacggaa atgacctga cttgacggca tccactcgt gattgctggg 1140  
tgtcatgta atgacttttc cggcggttgt cttgcaggtc tcttgggtag tagtaatcta 1200  
attgtacact gtacgtggta ccgtgacttg tgcgagttgg aactcttgcg tcttcacggt 1260  
acatgccga cccaacctca aaacctcagc tactcagatg agatccgatg ccattctccc 1320

caaccgcgc catggcctcg atcttagcct ctgttggtcc tcgatgactc gttagcacct 1380  
 ctcgtttctca ttttccggtg ctatttttagc aacctccttt tgcgagtgcg tgatggggcg 1440  
 gtgctagttc ctctctcagg ggggggggctc tatctttgcc actccttgac tgctctggag 1500  
 cctttcattt ctccgtaggc actcaactca ttatctactt tggctgagac tccgaccagc 1560  
 gccgcctcct gattcagggtt cttgttcaag gcgcccctgc aaacgcctgc ttgccggacc 1620  
 ggccctcgcg ggaggttcca tctatcaatt cccaagtctc aactttccag cagagtgagc 1680  
 gcttcgagga attcccagag actgtcgggg atccgcaggt gggggtatga tgttccagat 1740  
 tgacttcttc ttctccctga aaaggagctc ataccacccc gagctccatg ctcttctctt 1800  
 cgaaccccggt tttcccgaaat agcttatttg cattaccgct agcagcctac ggagcccgtc 1860  
 ggcgacctct gccagtcata ataataattat ttacggagtt tcggagcata ccaatcaaga 1920  
 gtcgagtcgg atgccttggt ttggctccgt caggtctctt cctacggaaa tgagatctgc 1980  
 cccttgggac aaaccaaggc cctccttact tccgtagccg cagtcacaa gatggaggcg 2040  
 ctcgttgctg cagcacgcca aactggagaa ttgccgtctc tccttctggt ctattcgaga 2100  
 caggcccaaa tcttgtctgc tgacctcggg cccgagaatg caagtcgtct ccaaagtgtg 2160  
 cacatcaact tcatcagtac agctgtatgg ctctgacaac cccttttcaa actacagagg 2220  
 atttcccacc ttgatggcca ctcttccaac caatagactc tccgtcacca tcaaaggccc 2280  
 tcagattcag tgcttcgaaa atgagctcat cactttatca gattcgctac cgcatgcgct 2340  
 ctttcctagt ctggtaatag cctctacgga atccagtgc agtcatgcag atgttcaata 2400  
 tgctggcact gcccgccgag acccacgccg ttcaagccta acgctcaagc tagaaccgcg 2460  
 tagattgtca ccagaatccg ctgatggagt cgtccgcggt ccgactattt gtcgctggcg 2520  
 ggtcagtcga gggctcgagg cgaatgaagg tctcaatatg gagcagtgc tattgtgcaa 2580  
 ttacatggaa tggagagctt ctgttttcca aaccgggcag agacgtctgt catctgcagg 2640  
 gctgcacagc gcagtgcgag ttctgaaaag atggtagact aggagacaac gaactgcaa 2700  
 cctcgggttc caggcttcga gtccaagtta gccctgtgc gtcgactaga tcgccaatt 2760  
 ctcccgaata gaggactggc agctgagggt ccattgggta cccatcaatc aaattagaat 2820  
 atcggaatcc cgggccatcc catccgcag gtctctggat ttcggaacat gggtagtctg 2880  
 aagatcccca gccttgacgg cacactgcc aatgataac taatgacctt gtctactcct 2940

gtcttgatgt agtccactct tactcatact ccacgagaaa ggggtagtgg aacgtctaac 3000  
 ggcattacca aggataatth teggagtcatt ttctcttagt ccgattttcg cagagctggg 3060  
 gacctatact ccgtactttc ttcccgcaag acttcaacgc ggcattctata tgacgaatct 3120  
 aagacggatt ctgtacctgt ttttagaccg tgtccggtagg acttggaat ttttgagat 3180  
 gtagaaaccc catacacata atactacttt ggaaacacac gctccaaccc attaccggaa 3240  
 ttatccacca ccgattttctt gagaactatt agtactcaga aattaacaga tacgcaagcg 3300  
 ctggtatatt tctctatggc gctggggagt gttgactggg tctatgggag aatatgagaa 3360  
 ctgacctatc cgtcaccaag cccaccgtcc ctctcgctt gcatttagat ctgcacctaa 3420  
 tgcaatgcaa tctgcaccca cgccacgccc tcgtaccga tctaaagcct aagttcgcta 3480  
 gcgacttagg tcgagccgag aaaattctct tcgatgtcct tggaaactta ccaggtagg 3540  
 gaatggcatt tatatatatt ttaggttgct atccccagtg gtggtaggat aatgcgtagt 3600  
 aatatacgca tatttggtgc tgcggctac tgcaatttg gctagcgtga ttgttagcgt 3660  
 agtttctcga agatgaatac ctttctcagt aatcatctgg catgaaactt aaatagtcta 3720  
 tgcatttatt tggagatatg taaatgcaga tggcatgtcc aattgcagtg tgagataact 3780  
 gtcaggtagt gctaaagagt taagtcaaat aagcactgac ttgactgtct ataagtgaca 3840  
 tggaaaggag gacgaggaat caatttttaa gaaaacaata taaattatta agtgtacaga 3900  
 aatgaagttg caatgccaaa gacaacatag cacggttcct gattgtactc aaatttgggc 3960  
 agaaaactac aaaattacct accaagccac gcatcatgac gtccgccggg ccattcttta 4020  
 gccagcgaa gcagctttcg taccaggctc tggaaataca gttttcaaac agacttcctc 4080  
 accccttgta tatcggttgt gtctgggata tcaatactgt tgtcattgtt ggtaccgagg 4140  
 tgcattggta ggggaatgcg ttggggtaga cgagcgatga ctggacgaag aatggtgcac 4200  
 actcgatgaa ctgccttgct ttccaaacca atggccagta gatgaaggtg agtggcgaga 4260  
 ggacgaggaa tgggtgcacac tcgacgtgct gtgctgtctt ccagtatggc tactagagga 4320  
 aggcgagtga cgggtggacg aagattgatg cgcgctcgat gaactgcctt gtcttccaaa 4380  
 ccaatggcca gtagatgaag gtgagtggcg agaggacgag gaatggtgca cactcgacgt 4440  
 gctgtgctgt cttccagtat ggctactaga ggaaggcgag tgacgggtgg acgaagattg 4500  
 atgcgcgctc gatgaactgc cttgtcttcc aaaccaatgg ccagtagatg aaggtgagtg 4560

gcgagaggac gaggaatggc gcacactcga cgtgctgtgc tgtcttccag tatggctact 4620  
 agaggaaggc gagtgatggg cggacgaaga ttgatgcgcg ctcgatgtgc tgtgttgtct 4680  
 cctgacccctg acgcgacggc cagtagagga aggggtataa gacgtggtgg aaagggttga 4740  
 ggcagtgagt atatcatatg cgtctgctca gatatgatag tcaagcactg gactactatg 4800  
 agaacatcat ccacttacca ttgtcatgag gaccaccgtc atcgggtattg tcgtcaccgt 4860  
 tgtcattatc ggggtggattg tctgatctgt actgtgcaat acatgcttca caccgagtaa 4920  
 ttatgtact cgcattgttc gctctgcaaa tacacctagc ttcggccgcg tcgttgtccg 4980  
 tctgcctgtc gcaccgttgg gaaatgctta cgagggggtc gcaggccgag tgacaaccac 5040  
 tggggacgtc atcttggtec aggtctgccc caaaggcgat attaccgcg aggataaggc 5100  
 tggagataat gagaagttgc cgaacatgca tgatggtggc aagaactcat tgaccttggc 5160  
 tgatggaatt gagtgacatt aacggcctca actccattta tatttgtctt cagcactcta 5220  
 ttgcgcgttc attgcgtttt attgatcgcg ttccatctaa cacctaagct ataagcttca 5280  
 aaaatgacga tgtctaggtc atgagtcctc gtagagacgg tggttaagct tcacattaag 5340  
 cctcctgaac tctgcagagt ttactgcttt caggcgtatc tgttgatcag gaggatcca 5400  
 aaggagcgta tgccaccaac gattcgagat cgaaagtctc ggagacctag catccgaaac 5460  
 cgtacatgga acaggtgcac tgccgaccca gggacaaggc agtggctgtt cttgtgtcga 5520  
 tgtcatccat gcgtatgggc tttgataaga cgatcctcgg tagcttcttt ctctcgact 5580  
 ctttactcca atgaagtcgc ctgtaccag gcaggcagct tccatccacg aaatggattc 5640  
 agtatggtat ttgaatagtc aaaattcaaa gacgtttgag cagaccaaga gtttcatacg 5700  
 gagagttcaa gataatctag aacatcctcg tctatcgtaa gatggctgag cgtggtggac 5760  
 cgctaccaca ttgaaaagcg gtctgttacc gtacttctcc attgcagcaa tgtcttctc 5820  
 tttgacctat gaatagctgc ctatcatggc cccagtgcg attgctgaat gggcaataaa 5880  
 gacaagggaa tggagctgat tgggcccggc cttcccgtgg ctgatttgat aatgatgacc 5940  
 ccgcagagct acaactgtca gaccagatgc cggatcttt gcgctacctc ctccctcaca 6000  
 ttgtttctgt ttcaacacga caagcgagga atgatggtc gcagtgcact ggccaagatg 6060  
 tcgtgggaag gctatacctt gcggtcgtc cagcacgcga atcctgcctt cgtcccgcac 6120  
 tttctctatg gcacagcgtg gaaaaaggac cgaacagggg acttagtgca tcaggcaatc 6180

agtaccggct tccgcgccgt ggatacagca gctcagccaa aacattatcg agaagacttg 6240  
 gtgggtgaag gcatacgtaa ggttctcagt gatggaattg ttcgtcgcga agacttatac 6300  
 gtatgtgacg ctgaagacct ctogaattga ggaactaaac aggccattag attcaaacaa 6360  
 aatttacctc tgtaaatgga cagaatccag atgatatgcc atataatccc aataacagcc 6420  
 taactgatca ggtgcactct tcggtgaggt cgtccttcta caaccttcgc ccgcccgctg 6480  
 agcctgaaag tgccgaagag acgtatatcg acactcttgt acttcactct cctctgccaa 6540  
 cgatggctca gacaattgag gcgtggtcag ctctggagac atatgttcct catcgcatac 6600  
 gccacctagg catctcgaat accacgctct cagtattgag agagcttgct tctttggcca 6660  
 aggtaaagcc cgcggtagtg cagaaccggt tctacgctgg gaccagttc gacgttccac 6720  
 tccgtgcgta ctgtcgcgag cacgagatct tgtatcagag tttctggacg ttgacggcga 6780  
 acccgagct ggttcgttcc aggccgggtca tcgccctcgc cagagatgca ggaatctctt 6840  
 cagttgcagc attgtacggc cttgtcctgg gccttgggca gaccacaatc ctaaaccggga 6900  
 cccccaaaaa ggaacacaag gaggccgatt ccctaagtga gtcgtattat cgccggat 6958

<210> 4964  
 <211> 10925  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4964

acaacgacgg attatctatt aagcgggtga acatgcggtg cagatatcga gtttcatcat 60  
 caagcccacg aggggtacta ggactgtcgg cgtgattgca caatctccct tctcattcct 120  
 aagggcacga atagacgcgc caaaagctg atcccagact tggaaactgt ctgagtattt 180  
 taatcctgaa gacaggatct tgattacgtt gtcataatca cgggcaatag acccgtcccg 240  
 tccgcgagct gattccatag tagaggagca taaacaatct gcagacattt gagcagtcgt 300  
 tgtccacaca acctgcgcaa agttatcaac gccatggaat ccacttccgt caggggtacaa 360  
 atcggcacat tgtctcaaga tgtcgagtcg ggagcccctt gaaactttcc catggcaggc 420  
 tgcttcaacg atatctccga taaggcgtga gtaagcagcc gttggccctg agatccctga 480  
 gacatcaatg aggagccgta gcaagtcaa tatagggtg tcgggattat tatttgcttt 540  
 cggtatgacgg tgtgtagggg ttgcggcttg gtatgaatcc gccgtcttca ggagtagttt 600

ctccgtaaat ggaatactgc ctagggcgct aaccatggtc gttgacagaa atctaaagcg 660  
ttcaaagaaa gtatccattg aatcgccatc gacagcattg agagacgagg gtcctccatt 720  
ccatagccgc tggagaagcc ccaaaacatg ggccactgtc tgcatagact caggagaggg 780  
tgtaatctct ttactggctg caaacgccag ggcattggat agactaacc acgctgcagc 840  
aatattggac ttctccatct ccgggcccc aattgacgac ttcaagatag cctcgaacac 900  
cctcaacaca tccggaatcc ttgacctaac ccatttgcaa tccaaggggtg gcagttcttc 960  
tggcacaatc ctttttggtt cattgacgcg attatccgac aagccctgag aggggtgtgaa 1020  
ctccatagca tgctggacag cacgtgcgca agcctgtcgc taaggctggg gacaaaggaa 1080  
aaaatatttg aagatgggga gaggatgtac tcttcccaa ctttatcgag ttgttggtga 1140  
gatgcatcag gtcgaaaggc ataatatagc agattgtagt aactggcaat cacgagttgg 1200  
ctgggctggg agcctgtctt gtcgtgcttc tttcttcaa actgagagag tatcggttg 1260  
ctaagcatac gcagcaggga ccgactagtt gtgtcactga tattggccac taatacaaac 1320  
cggttccagt taccaatggc ttttgacttg atttcaggat cattgcaatt gaagcatttc 1380  
tgaagaacga gaaccattc tttgaagtgc tgccactggt ctatgttgaa ccgcttgctt 1440  
ctaagaagta gtgtgatgac accccagatt tgaggaacgt gttcgccggt ttctggattc 1500  
gacatcatcc ttgacatacg ctgctgacc tcggagacca gcttccggtt gtttgcgagt 1560  
ggtcggtcga agatatcacg gagtgtcttg gacaaagtgg agttcgaacc agacgccata 1620  
tacacgttga aaccgagctc aagcgcgtt aatcggacat ttttgatttg atggagcaaa 1680  
ccagatatga gatgatccat ccacaaagtc gatagggcaa ggaatgtcgg ctttgccacg 1740  
tcaaatagtc gctcgtaaat cattaaacgc tgagagatta cggagtttcc tttgactctg 1800  
tccgttatac tatgcagcat tcccagtatg cgcgtcgtcc ttgccgctgt gattatccgt 1860  
gctgggaact tctgcgttga caggacggtg agataatggg tcacaacgga cttgggaaga 1920  
ttttcactct cgagacagac gaccgagtgc tcaatgagga aaagcttgaa ctcatccggc 1980  
aattgaggag agatctgagg atgccaaaca agcaccacag aaagtttttag tgcttggtg 2040  
acaaggtttg tatccagtgg accgcccttt gtgagatcgc ggctaatac cgttggtg 2100  
aactctgcaa tcaggctcat cttgtgcaga atttcttctt ctgtgggcaa cttttcgtat 2160  
gcccttaatg caccaaagaa ctgcatatac gcactatcc ttgagctggg cgactctcca 2220

gccaattgct gggtgagggga ctctaagagc attgcgaaag actctgggggt atacgtgata 2280  
gcagcagccg aatgaacagg gccgggagag ttcgctggtt tgagtattga tctaaccggc 2340  
ttgagatcgt tcgaaggaag gagagctttc gacttcgggt tcgtgaagga aggaggtttt 2400  
atgaattttg gccatggcga aaagttcacg cgcttcgact ggcggctgga aggtgctcca 2460  
gttgaggtcg agtcgttctg caggacagga gattcattag gcgtttgtac gggcactggc 2520  
gagtcctccg tccgatcttt ctacagacagc atacgagacg cagtccttgg tggagtcggc 2580  
ggacgagctg acaaaggacc cagaacgtca accatagttc aagacaagaa gcagtggtag 2640  
aaggaggaga gaaaacggaa cattgcgaga cggccaagct ccaggagcga actcaggcct 2700  
gttcctaacc acgccgtagc actgaagatg gcagattgaa gattgacgga gaccatgaag 2760  
aattgagacc agaacgccgg agacgccaaag ccacgcctga acgcggttgc agacgcgtta 2820  
agtggcagcg cgtttgaagc cttgtaagta aggcctcaag gcatcagcag cggcatgcag 2880  
ccttattatt taggcaagct gcggagaagc tgactacaag tggggcttag gtgtttctat 2940  
ggcgctcgta ggatcaactg aacaatgaac tgaagggcac agtcatcat ctatttcttt 3000  
attcgcataa ttctttcatt tgtaagactc gagtttgatt cctcgttgat tgtctcgggg 3060  
gagctctcct gcactacct aacctctgtc tctccgatt agactcctcc cgtgcgacgc 3120  
acaactgaca attcttgaac ttttgaacaa ctcaacaaa ggaactctta tcgcgcaagt 3180  
gtacacaggc gccgagtga tgggatttg cgtattctgc agggctctgg tatagtgcag 3240  
tacctgaatc attcttttcc tcagcgctga cacatgctca acagagaaat tgcagcaggt 3300  
caciaagctt ctgaactctc ttgaaaaaga cctgaaagat aactcgttga actctgcacg 3360  
taagcaacct aaaagccgca tactagatag ctctgacttg ttctagaaag aactcagatc 3420  
ctcttacagc tgaggcaata tggcacgagt cccgacaatg caggaccgat ttactcaaaa 3480  
aagggtggatc ataccacgtg ccgcctctga ccgtctctaa catttgcata gggcattgag 3540  
atactatcca agtatggcat tgacggtgag acaacagacg tccgccatgc agccctgcgg 3600  
tgcgttgcaa acgctctctt gttagactcc aacatgcgcc agttgttcgt agacactggg 3660  
aagggcggga gactagccga aatgctcaag gtatgctcaa ttccatcatt gtaatctacg 3720  
ttaacacgtc tagtgtgatt cttccgagca tgaaatggtc atcagccgaa tccttttctc 3780  
ctcgacatac gacaccaacc tgaatttcca cgacctcatt aacaaccact ctctaggaga 3840

taatatcaac tacgtgagct gagcggtcccc ttgaaagagt taacatgcta ataacgacag 3900  
 caaatccctcc gacattccaa acaattcccg aagtccggca gaaagcctct atcacaagtc 3960  
 gacgagctgg cttttacaga tacgttgaaa ttggtattca acatagcgaa gctttttcaa 4020  
 gacctggcgc cgacattttc accgtcaatc ccatacatat tcaagatcat cagccgaatc 4080  
 gatatcccct tgaagcctct ggatggtctt ctcggcacac tattgaaactg cttgtcgaca 4140  
 ttggatctcg aaaacaagaa caaaaagcct tacgacggca acccaatttt ccctaccttt 4200  
 aaccagaact gcaacgtaga caagttgatc aatatactag atcaagcagt gtcagcttac 4260  
 gagccctcgg agcttgaaac caaggccatc cctctcttcc ataccctcgt aaccatccac 4320  
 gaggtggcac ctgatggtec ccgcaaatac atgcagtggc ttcttctacc tgacgacaac 4380  
 gatcggggacc ggccaatcgg gcagtctgac acgttatcgt cgaagctgct caagctttca 4440  
 accatgcact atgcgaacct taaggctcgt atctccgaac tcatgtttgt cctttcagga 4500  
 aagaatgccg aaagcttgac gaagaacatt ggttatggtt tcgctgcggg gcttctagca 4560  
 tcccgcggca tggatatccc caagtctgcg ggtgaagcat tcgcaaccaa ctctcaagat 4620  
 cttaatccag agatcaatcc gatcacaggc cagagatggg ctgcggaaaa ggaagatacc 4680  
 ggcccgccca tgacgaaaga ggagaaggag agagaggccg aaaggctggt tgtgcttttc 4740  
 gaaaggcaag tacaacggta tgtattccat gtagtcatgc taattctatt atagggccaa 4800  
 agcaaacggc atcctcgggg tcgagaacct agtcaccag gctttgcggg aaggaagatt 4860  
 ggaggagttg cctgactctg atagtgaata aatatatagc agattgtagc cgtataaatt 4920  
 aaagttccag aaaaactcgc tccacaaggc cttccctaga gcactatgg cagaacatga 4980  
 gatcagctag cacattcatg gtctactgta ccctggtcgg gatgtcggag cctggtagca 5040  
 atttgagccc aggttatagt cttaacccac caagatgtgg tgtagtacca tgctagacac 5100  
 cttcatccag ctgtccgccg acgccttaat acagtcatct tctcaaagggt ttatttctcc 5160  
 ctatgctgag atatggtaat cgaaattgct gcattatctt ataccctgaa gaaaaaaaaa 5220  
 agcccatggt tgctctgcg tcttcagcg caccacata cactactaag tcgacaacca 5280  
 ccttaacatc aattccttcg gcaccctact tcttttccag gcgtcagcat cattgaaagt 5340  
 gtcacatca atataaaagc atacacttct ttttttacca ggccgcgaag gacgtttgca 5400  
 gcattagcgt tgtcctgtaa tcctgcagcc aggagaaatc gaccaaacgg agttcatcgt 5460

ctactccagc gttcgcaccc aaggcataag ggaaatgtca aatttgctcc gaaagagtaa 5520  
gggcaaacgg ctcccatatg gctttgggct tgctctcgtt gcgttcacatc tcctcgataa 5580  
gaggcactgg gtttgtgaag cccgcggctg cttcatatca accacaaatt ctggcgacta 5640  
accgactttt tgcaagcaag accagctccc agataaaatg tcacagtgtt atgtccatgc 5700  
cataatagtt aatgggtctg aacctttcca ctgccaggcg atcaattgaa gacactgcaa 5760  
tggtccagcg tcaagattat ttgacggat aatcatttcg ttccttgctg ggtggaaaat 5820  
cttatgcatg tccagctggg gggcaaattg ctcggttttt tgatagcgta aagcattaag 5880  
aaacaagcct cggcaataac gatggcggag ggtcgagggg acgactccaa tggcagttcc 5940  
aacagaacta gcaagcatat aagtaggtag gagaacgtca agagaaagtc gctcttgac 6000  
tatgcaaata tgagttaaat gtttgacttg cttggtttac gcaagcattg tcccagcaga 6060  
catagcgagt atgtaggtaa ccttcctcct gccctgggga gactatataa cgccaagaca 6120  
agacggctcc aatgacgtct gtgggggtga cggagcacag attcttggcg aaaaaattga 6180  
ccaccgctgg gctatccaag tgtttcatac taccttgcga atctggag ttgagtccgt 6240  
ggccctttct cacttctata tttttcaata cgtatagttg ctcgataa aagcccca 6300  
aatgtcgaag ccgtttgacc ccgagcaggc gcagaacctg gaagatgtaa g 6360  
cgccaccctt ccatactgac caagctaaca atcaccaga tggagaagca gttcgcctc 6420  
aagggttcgt gacgttcctt tcactttcgc ttacattcga caatccatca ctaccatct 6480  
cgcagccgtg gagcacctga tgacatactg gtccatcctt gaaaaagtcc ccggatcca 6540  
gctgcgctcg acgaaaatcg acgacgagat ttacgagcac ttcaaggcgg aattccccga 6600  
tttcgacccg gccgagacga ttgatgagga caagatgaag agcaaggagg gcaaggagaa 6660  
gtggcgtaac tggatcaacc agtacgagaa gaagattcac gacttc 6720  
gctgcgggcg aacccaaaga ccgaatacga aagggacaat ac ,atttttg gtgagtcttc 6780  
cgaggctctg gagttactga atatggattg ggatgtttgg ctgactgggt ttttgcttct 6840  
agcgatgagg atgcagttct atgctattga gattgcgagg taaggcgtct cgctatgcat 6900  
taagtcggct gcttgctaata ctggtttgcc tcatagaaat cgcgctgggt tcaacgattg 6960  
ggtttacgag caggcacagg cacgggcgaa gaattccagt tcataatcac gtttacttac 7020  
acgtcgatcc ccggcagtta gaaattagaa cccattccac atcagcacgt ttactgcgaa 7080

ccataactaa atcttcttct atcataaaca gagggcgagt ccggctgcct tctagatttt 7140  
ttggagtcac aggcctagggg tatactagta gcgcttctaa ggtgacattc tagactatcc 7200  
agccatttgt ttcccaaaat agatttgggt ccagagatgc aagtatattt gctgaggtct 7260  
ggatggtagt ataaagaggt gtgggtggtc atccagccag cctggccgag aagagcaatg 7320  
ccaacgccta ttgacctatt gcacaaaaca ccctcaatgt gcctgatcta gattgtcgag 7380  
gctgggacat ggatggaagc aatcatgcac gtatgcttct cttactctcc aatgaaagaa 7440  
gagccctgaa cttgtgtgca tgactatact gcgtgccgtt tctgttccgt ctttctcatg 7500  
cgtattcggg ccgtccacag ctctactagt gaagccgact aagagacatc tacacttgct 7560  
agacataatg gctacaactt tgaagagtta cttgcaagcc tggtcagtag accatgaccc 7620  
aaattcacga ccagggagca ggtcctgacc tgcattctat atatatttca cgatcccaag 7680  
atatagagcc ggtaggtgat aaggcacaaa ttctctatga cactgcagaa taatcagtag 7740  
attgaagatc tggatgttac cttactacca gtgatcagta gcacttcaga tgagaatgag 7800  
caattattag cttctaacct gtttctgttc ttggagtaca ttggtgtctt tagagtagcg 7860  
gcttagggca aatctgctga gattccaagt cattccaatt gattgcgcgt agtctacaaa 7920  
tccagtttctg ggctgattgc gagttccatt tctgcgtaat ccagatctcg aataaccaca 7980  
acgtccgata tcgccgtccc cagcaggcat cttcaacctc gaccccgagg tgctagtcac 8040  
tgagctgcgt gggcttctct aactttcata tcccacaata tcaactgtat atcagcataa 8100  
tctcgagacc ctttttttct ttaatatctc ttaacctatc tttttccccc tcattgagtt 8160  
gctgccgcag aggatgtcat aatcgactc atcaatatat acgtaagcta ctcgtgatgg 8220  
ttatcaataa cataatcccg gggacctcag tctcatcact cgcacactca tacctcacgc 8280  
actcttttgt gataatgctc ttgagctgca tctcgtggcc gtttgtaga ccctggccgt 8340  
ctgtgcatct gttgctgtcg gagtgtgcat cgatggaagt caataatcaa ggcacggttc 8400  
aactcagcat tccatagtat attctctggt cggagatcct ggtggatgat acctaaagaa 8460  
cgtatcttctc tcagggaccg tgaaattgca tgatcgagac tgttcccgga tctcagatgg 8520  
cttaaatect caccgcccc acccataagg agtatgtggc gtatttctcc tgcgccatgc 8580  
aggaagtaga ctctgtccaa gtcaatcgct ccaaggaaaa ctggaaccgc cgagccttgt 8640  
acaggccgaa ggatacggt aacgtccgct tactcgata ccactttcca gcgccgagag 8700

gtggtggctt tgccgacaat agtataaccg tacgcggcac aagtgacttt aaacggcgca 8760  
 cgataagacc cacgatctcc catcgggtgta aaattatgat ccagatcttc atcaagctgc 8820  
 tctttgacca tctgcaccaa cgtcttcacg tcgatgtgtc ggtcgtcctg tctgccagag 8880  
 atgtggagtt cagcattagg acagcaaggg tccattacac cgccttggtg caggcccaga 8940  
 agatactttt gcgtgcagaa ttgagctaca tgctgataaa attgcttccc ttggcaccct 9000  
 ccaatatctg ttccgcgtgc agagcgacga gtcgggggtg acggttcgac cttgctgaaa 9060  
 cccctcttcc gtccggtaga tgtgttagga tctgcatcag agtctgaaga atcctctcgg 9120  
 tgtggctgat cggatgaagg cgcacatcca agaccatctc gcgtggccat ccgatgacct 9180  
 ccggggacgg gcaatccagc cgagaaagat gatggcaggt actcagacgt agcctgctcc 9240  
 gaattagagt gtccagaact agtactttct gtattctgag cgctctgatg tgactgttat 9300  
 gggaatctgc aagcgcatac tgtcaaaact ggaacaccag gtttgtagct tgccgcgcgt 9360  
 attctccgcg caggcatgat tacgacaaga ggaacgaaaa ctcatcaagc agagacatag 9420  
 ggccctctca actcgagtc taggtatccc aggtcttcca gcactcgcca ttctgattat 9480  
 actaaaatca cctaggttgt agtagagcgt atctgggtca tcaaagggaa cccagagctg 9540  
 cacgtccatg agtccgttcg ttaaatatga atattcgaga ccctcttgaa tcatcacatg 9600  
 aaaatcttgg acgattgctg ctctacaag ccgtgccatg ttgtactttg acttctccgg 9660  
 ttcttccgta ggaatcgtat tgagtttgac attctcttgc cagaaattca tcggtcgaag 9720  
 acctcacgaa ggctctgcac ggagagctta tggggtgctt tgtattcgac ggtggtgagc 9780  
 aagttcctcg tgtcactgtc aactcgatga atgcagaatt ggtcaggctt ggcgggtttt 9840  
 tcgcttgaag atctgctacc acctggctca ccatctttct ccggagcgtt ggagtgatta 9900  
 tcaaaccaca ctccgtcgcc taactgaaac tctttacggc atcgggtatc ttgcataact 9960  
 cggcaataat atcatgcaca tgatcttcca cggctagtcg ttcacaagtt gcaagatcct 10020  
 gttcgctgct aatcgctcgg tcagcgatat cggcggccaa tttcttccaa cccagcacgc 10080  
 gatgcgaata attgccgtga atctgcttcc gtgggctgta ggtggcggca gaccgattca 10140  
 tagatttcaa gctgtctagc tgcaaacgcc gtccacggaa gcagtctttt agggcagtat 10200  
 ttgtcggctg gagggtaaat cttccctgtc gtggagcgag aagggaacttc ggcttttagc 10260  
 ggtcgccata ggagatcatg ggaatatcgg atgaactctc caaagggtgct tggtcgatta 10320

cgctcttttt cttggttcct ttctctctct gctgttttc ttatctccct ttctgtcttt 10380  
 cgttcctctt ctgcctcgag aaaaaacgtc ttgtaatcag gggagctgct tcgggtcatt 10440  
 gtgctcgtaa ggcaggatga gaagactctc atggcaatga agattcacag cagtgttgct 10500  
 ggatatgttg tcgcatgtca gcgatcacat acccatttgc cacgcgaatc aaaaaatccg 10560  
 gcgcaccaga gccaggaaac cgcgacacac accacagccc ttgaccgctg cgattctcac 10620  
 tgcccgaaca gttcatgtac tttcttagac cagcagcgga tgcagggttc acctgtcttt 10680  
 tgaagaagag atagatcaac cttcaagag ggcattgcacg ctagcagtta ttttgtcaag 10740  
 attagaaaat atcattttatc attcttagtg cgggctccag agctaaaaaa tgtgagggat 10800  
 acggatcaat gctggtaatc cgtccaccaa gttgatttca aatttgtgcc ggctttattt 10860  
 tccccaaaat tagttttgat cttggaatca tcaatcatag agcctagtat tcgacaccat 10920  
 agaag 10925

<210> 4965  
 <211> 8438  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 4965

tgcaatattt catgtgctag atcatgccc catcaggac gagatgactg gttgtgggta 60  
 gatgatgttg gcgcgacaac aacctatacc aatgcacgaa gctgccaac agttgaagaa 120  
 ggcgacggtc tgaacattgt gtggaggccg ggctaccaca aggggtacag ctccggaccg 180  
 acacactttg ggatgagcga ctttggcaac tctgggctcc gacgtcgcgt tcaattcgca 240  
 cgaatatatg gagtgccgca ggactttggt cttctcgga gccaggacta cgtcttcggt 300  
 gacagggacg acaaccagt gaacggtgga ggtgacggtg acaaagtggg cgggtacaca 360  
 tacagaatcc gtgtatggaa gaataaagga agcggaggaa caaaaatcaa aggtcagtta 420  
 cttgtattga aggcatttct tcttactaaa ggcgatttct ttggtagccg atgggaatcg 480  
 gtactgcaac atgttgggcc acgacgacgg tcgtatggac tatgtttgga tcctctcgaa 540  
 gggcgacatg cgaatatacc ctaacaagg gctttccttc gtttccaatg atggggagag 600  
 ctactggggt ccaaactatg ttatcttcga ccctgcaagt atgtcaatca accgagacct 660  
 cgatcgtcgg gacttgcac tcgtcgactg ggatggggat ggtgcatgcy acataatctg 720

gacagaccca aataatctga accggcctcg actgttccgt aatcggatta aagagaccgg 780  
cgatttcaat tgggagaact ctgccaatcc tgcgccacc gtgtcctgcc cgatacaaag 840  
aggactaggg ttctttgacc gaccagtcca gctcgtgat attacaggaa atggcaaagc 900  
tgactatctc tgcacgaga aagacggacg gacctggggc tgggttcata atgacaatgg 960  
ctgggagttg attgatcagg tcaaattttc cgaggccaaa gaccgggcga atctacactg 1020  
ggctgatgtc aatggtgatg gccgagccga cctaattcat accaacaagt tcaacggcga 1080  
tgggactgtg tgggtacaatc gtggccgccg tgagatcggc ggctcacggg tctggtggga 1140  
accagcaggc ctgacatacg aaggtgcagt tgcaggatcc tgcacctact ttgctgatct 1200  
tgatggagac gggcgcgcg atgtgatgc aatcactcat tccatgctaa ataccgcaga 1260  
gacttggat aacaaatgtg aacttactga ctctaccggg gatgatggcc ccattactga 1320  
cccgggctta ccaagcatac ctgaatgaac ctacctcggg tcgtcggaaa agtghtaaggc 1380  
gaggattcct tcgcagagaa tgggctccc atacatgaga catgactata tacagaatgt 1440  
ggcatatga tccgaacggg tggtaggaga atattgaaga gaaatcatgt tccgtagatt 1500  
ggtggcagct gcttgaatgc gctcttttcc tgttttgatc cttagctgct gtcaagctaa 1560  
ctgttgggac tgggtacagga tacaagtaaa ctgtggtaaa tagaaaatag aaacacaact 1620  
gtcaaaagga cctttaattc tgcagacttt ggctcgtttt tgtatggagt ttcggcgtct 1680  
cccaccgacc ccagcaact acttttaact gccctgtctt tattatttct gtccattcct 1740  
gcgcatgagt tagattgatc ctgtatctgt tactaagtac tagacatgga atttgtgaag 1800  
tccaataaac cagcacatca agccgaatcc aggtccatgc ccaggctag gcttagggag 1860  
tattgaactg agcgaaactc gttccgattg cggtgactct ctatgcaata gcgcacagat 1920  
actagataga atattcctgg cagatagtcc gaagcagtcc gtcacgttat atttgggccc 1980  
ctgccctgct tacctgaccg tgcagtcggc aaattctgtc catgtagtta tagtatagat 2040  
attattgctc ttactcaaca cgccctatat gctgaacaaa cttagcaaag gaccagatat 2100  
gggccgtctc acctcacagc cagatttgga ttgccagtc tgggtggcat aggcagaaga 2160  
aaaacactta taccgaggt ctcccaact cttaggtctt tttcttcacc tgcacatgta 2220  
tccctcgcag ctgctttcca aaggcactcg gacataacct tccgtcgtgt cttaatatgt 2280  
ccaacgaaac gtgaccattg tcctgctcgc cagctgcgaa ctgcgcccgc ccgtatacac 2340

aaccgaaca ggttcatccg aacaccatgt attctggtca acaagcggcc cgtactcgca 2400  
ccatacgca acacaaaca gctgtcaaaa tgaagcccca tacaccctt gtaaaacggg 2460  
cctgcatcat agtcttccgc tgtggagtta tgacttgca cgtcgaggag gttgatgtag 2520  
ccgagcggcc cgcacggtaa tcaccactat cgccatctcc acgacatggc tccgcttctg 2580  
gcgagctaga ctagactgta gtagctgcta gtcaatcatc aggccgtata cgaaccggag 2640  
gctagcgta gtactcggac cgtgttatct aacctattct ctatgaagcg tatcatagta 2700  
cctgtaagca tagtatgcgc actcccacca tatatggatc tttatcctga atgataacat 2760  
tgtggtagtc ctcatgagtt atttttgctt cctcagatgc aattctatat caaagtacta 2820  
ggcgttgaat tagcggtcag aggagtaagt agtacggttg gtgaagtacc tccagggcca 2880  
cgcacggccc cgaaatgcag atcaatatag gaagtgctgt gtgtaggatg attatatggc 2940  
gctggggtat tatcatggtt tctgtccatg cgtgcttgtc gtttatgcag tgattcgtct 3000  
gggactaatt caagggggga acagggcgcg aaccagtact tttggtgaga tgaagattca 3060  
cttctgtctg gggatagagg cgctccaaag agatggctgg gggctggttg tcggaggtgg 3120  
aagaaattgg acccctaaga agggaagttt atatagccgc taggaacgtc atacacacaa 3180  
actatcggca cttaatcgat aagtgcagg tctaatagtc ttaggcactt acttactttt 3240  
tgagataatg tgggggtatg cgcagtcttt catgtcatca tcagacacct aagcgttcaa 3300  
accaatcaaa aaaagagtag accgtcattc ttacaaaatc ctgcgacatt atagagtata 3360  
taacgagtgc ttatgatgaa tattagggga aaagaatgga gtaaaaacat taaaccagcg 3420  
cgctattaag catctgtatc tatcccgcca gggcgttga gccgttccgc ggataacgac 3480  
tctactatg caacctgcag ctctggtggtc ggagttttga cttactgacc tctgattctg 3540  
tcgcgcgct ggagtaactc cgacgacttc cgctgacca gagtctgtta agcgaggagc 3600  
caaagttctt ctctctgtat ctatcaagca aggcaggtaa aacgggcaga caagcgcaga 3660  
taactctgtg taggcttaga cagtactgct caagacacat gtttagcacg agccttcctg 3720  
gtagataagg ttagtgactg gtgcaagatt gtgaaacgta cgcccattta gaaattgagg 3780  
atatgtcca ggttgccct gggctgcttg tgaggacgtg cgtcatgccg agacggacta 3840  
tgcttgccgc gaaggcacta gtaggagaga tcagctactc tataaccggt ccagaaaagg 3900  
ctggataaaa cgtacagtat tccagaccg aagacagctg caagccgaat ccttttccac 3960

gccgttatat ttagggccca gagagtgcgg acacggagca gaaggacgta gagacctgtg 4020  
 gctgaactga agggcgccag aggtataggg caagattcca ggcatccagc agcggctagg 4080  
 tgaggcgga tcccaggcat ggcttaccgg taggcaggag aagatgggta gaaagaggag 4140  
 agtgaggttg gagactgcaa cgaaagcgac gccaaaggta atgagatacc taatgctgag 4200  
 atggcgtgga aagatgcggt agtagaagaa gacgaaagcg agtttaatgg aagccgtcag 4260  
 aaaagtgtag atgtattgtc aatattgaat atctagacag tgactttgta tcccatcttt 4320  
 gtttcattgt aggagagggg tccttacctt aagagtcctt gtgagccaga tcatgggtac 4380  
 accctacata tggcggccaa tccccgcga aaaaaaacct gggctagcac ttagaattta 4440  
 gtattatatg acttgggtag aatcacgcat ataataagac atgagccccg tgaacgtgat 4500  
 ggtcaggcga agaatcgctt cttcactagg caggtcgaca agctacatgt gccagcaaaa 4560  
 aaagactata tcaatcagcg aggttgtaac aaccggctt gacaattagg ctacagccg 4620  
 tctatcccca gcttcataca aaggaccgcg atacgtgtga acagcctcat ggccactgcg 4680  
 attgtggtca cagaaagaaa gctcgcatgg agggcaatat tgccatgcag ctgactgagc 4740  
 ggatctcaaa attgggttca actccagcag gaggaagggc gccaccggtta aaccactgag 4800  
 atgccatggc atgtttatct aataagaaga gaaggaggaa tgggaaaagg gggatcgaaa 4860  
 cacaaagaga agcagcagca tgtgaagacg gagaaggatt ataaaatctc acgcgctccc 4920  
 cttgaccttt ggccacaatt ttcgaggtgc caccacattc gacagcggct gccttgcatg 4980  
 ttctttccc gcattctgtt tcttattgtc ttgttgcttt tcgcttcttg ctgcctcaga 5040  
 ctcaaagctg tagaataaaa ctgccccgtt acattggaaa gtctatcacg taaccgttag 5100  
 cctcactatg ggtgtctacc tattctctc tagcctgtgg gcaacactcc tgctcgccat 5160  
 tttgattgta tgattcctgc ctcggtctac ctttccgccc atctgacaca tctttagta 5220  
 tcgccttggt cggattacct acaatcttta ttccatccg ttatctggca tccccgggcc 5280  
 cagcgcgtgg gctgcatctc gtcttccgtt cgtttacgcg ctgatcaggg gtaccatcat 5340  
 ccaggacttc caaaagcttc acgagcagta cgggccatt atcagaattg ctccaaatga 5400  
 agtgacattt gccacccgg aagcctacac cgatatcttt cagcctcgcc ccgaaaagag 5460  
 tcagggccaa ttctcaaag atccgctgtg gtgggcgct caacctgggc atccggattc 5520  
 gttactcagc gttattaacc cagaaagaca tgcgcagatg cggcgcgtcc taagtcagg 5580

gttcacagcc cgcgctctcc gcaaacaaga accgtttggt cagaaatatg tcaatctgct 5640  
 tgtagcgag ctgcaggacc ttgtcagcaa aagtccaagc gcccacatca acatgacacc 5700  
 gtggttcaac tacactactt tcgacatctt tggggatctc ggttttggcg agtcctttga 5760  
 ctgtcttcag cactcaagat accatccatg gattgcctta ctattcgaca gtgtcaaggc 5820  
 cgccggcttc gttattgcca cgcggtatta tccgctgatt gaagccgttc tactcaagtg 5880  
 tgttccacct tcaatgcgaa aaatccaacg agatcactat cagcagatcg tcgacaaaagt 5940  
 ccagcgccga ctgggctggg aactgcagcg ccccgatttc atgtcttacg ttattgacga 6000  
 gaggggtggt cttcgacttg atgcaggtga gctttacgct acctttatga ttttgaccac 6060  
 agcaggcagt gagacaacag caacagcatt aactgggacc ctaaactact tggtaaataca 6120  
 tagccccgaa agtcttcaac gactcgagaa tgagattaga ggtgcttttt ccggcctgga 6180  
 cgcgatcacg cttgatgcag tgcgcaattt gcccttctc aatgcagtca tacaggaggg 6240  
 actccgacta tgtccaccaa ttccatgggt attgccccgc ctgctcctc aaggaggcag 6300  
 tatgatatgc ggtacatggc tgccaggtgg ggtaagcgaa tgatcctcgg cgccaagcag 6360  
 tgatgctatt tagcaagcac ctgggtaaac cacctgctaa ccggagagtc caccagacc 6420  
 ccagtgtcaa tccaagcata caccctcaat cgtgaccaa cctctttta ccgagccacc 6480  
 tcatttcttc cagagcgatg gctggcgtct tccacgtccg actccagttc ttgctttttc 6540  
 aatgatcagc gccaggtcgt ccagcctttc agcaccgggc cccgtgcagt tctcggccag 6600  
 cacctggcgt gggccgaaat gcggctgata cttgccaaat tgggtctgggt gtttgacttt 6660  
 ggggcgattg atggccaggg tgtcaattgg gaggacctgc ggacgtatct gcttggtgag 6720  
 aggaagccaa tcaacgtgcg tatcagctct cgcacggtct gatggctacc ggtcaagta 6780  
 agcgctagct gtggtcaccg cgcaggaatg cagccgtgcg ccggatgttt gccatttgtg 6840  
 atcgcgctgg aatgtatgat tgcgctgtaa tcattatctc atgcttgccg gctgcttatg 6900  
 agttgatcag taggacttgg agttcgaagc ggcgcgattt gagttctttt tagccaattt 6960  
 gatgtctatc acttatcttc tggccagaaa gggagcatgc caagtactgg tcagagaaaag 7020  
 tcaacgaaat tgccattcgt tctgcattgc ctgtacttct aagtagatcg aatatgaaga 7080  
 cgtctgctgc tttctaagag ctagcttttg tggcagatca gcccggtgc tgagacctgt 7140  
 agtcaaccta gccctgccag aagctaaacc tgtagtagca gtaatagtct gaatgggtat 7200

taccaggca gtggcagatg tagcacatct atggccgggc gctctagagg gtgttcaagc 7260  
 atgcaccgtg tattggtatc catcctcaat tactgaatca catccgcaga aagttcatag 7320  
 agagtgtatt gattacctcc cagccctagt cttgaagccg tgtgtcagtt tttgtctacc 7380  
 ttatccgatt atctgctcga catcggtcac attcaccctt agccgcaaag gagaacagag 7440  
 gagagggctc catacctctc ttggcactcg tggcactctt agtcaccatc tacaatatca 7500  
 gtatcattac cgtctttact tcccgcctct ggccaagttt cccggatcaa ggattgctgc 7560  
 cgccacaggc tggatgaat tttattttga caactggaag aatgggaaat atatttttga 7620  
 gattgaacga atgcatagag tctatgggat agcatctaca gcttctttta tgcctctct 7680  
 acctacgtac ctacttattt cctggaggat taacacgacc tgagagcgct aggtctaatt 7740  
 atccatgtca acccagacaa actctccagt cagcaccag acttctataa tgaactctat 7800  
 gtgaccgaga gcaagcggcg aacgaaccat tacgatgtgt tctgcaaggg aatagaattc 7860  
 gaattcgacg gtaccggtt ctcctatct taaccgctt gtagctttca aaatatttat 7920  
 gaatgctgaa aacagaacca caattcaggc tccatttac tgacagtaga ccacacactg 7980  
 caccttaagc gacgcaaacc gctcgagcct ttcttctcac gcaagagcat ccagaaacct 8040  
 cagccaacgc tcgcggaggt gacgctcaaa tttgaacagc cactgcgcgc ctcgtcaggg 8100  
 acaggatatg ttgtgcagct ggaccatgcc tgtgccgct tctcaggcga tatcatcgcg 8160  
 aagatctgcc tggatgatgt agcgggaagga gatagattcc tcgatcatcc tgaatttgca 8220  
 ccatattggt acgtgggctt tgcatgacca gtctttacgt atcagggaaa tgaagactcg 8280  
 tttggccagg tataacttat ccatatgcat gtgagatgga tttcgctatt tacgggggtt 8340  
 ccgagtctag ttcggtatgt atacctttt ttcagtctgt aaatacagct ttcttggact 8400  
 tggaccagtg gaacaatgct cgctgaccac ggtagaa 8438

<210> 4966  
 <211> 8997  
 <212> DNA  
 <213> Aspergillus nidulans  
 <400> 4966

tatcaaataa tatggaatat aaatatgaaa tatcacatgg atagtacgac aacttgatca 60  
 gtcccttagcc ctgcgccaga attgatctcg cagccaatca ccattagcag cacttcccgt 120

gaagataccc ggccctccaa gctcagtata taaccgcttc ctgctctcga agtccgatga 180  
 tagaccaagg aacttagccg tgtccacgga cgagtttatg tcgaaaccct gtgctgccat 240  
 cgccccaggc ccgccgttcc tccgcaacac gagaccacca ccaccaccac caccaagctg 300  
 acctgcgatc atgttctgag caatgacggg aacataactc atgagtgcgt ctccacgcc 360  
 tcgccaagt tcgcggaacta tattctgcac aagggaac ccctctgcag gctgcatgt 420  
 actagaggcc tcagtcttat tgcccgctcc ccgctcctg ctgttcgcag gttttgcatt 480  
 gtcgggagtc agaggctttt gagatgtgcc agtattagaa gtagaggact ctgggcggaa 540  
 gatcttcgcc gcggacgtag cgtcaagact tacaccgaa ctgagctccc gcaaaaacaa 600  
 aggctcgaca gaagacgagt cgttcgcaca gtgccggacg accatcttcc tagcatgatt 660  
 actcagctcg tccgctcga catcccagct cagcacctcc tccatctcaa acccatcaac 720  
 gtgtctcttc ccaaactggg atgtgcgcgc cccttgaagc agaaagctcg ccactcagc 780  
 ccgctttcgc gcctcgaggc gctcgttgta tgcctttgtc tggccttccc agaaggctcg 840  
 gacgaagggt aggtagggga agaaggctc gccgcagagc tcggttaagcc aggcgtagag 900  
 ccgctgttca agctcgtcga ggcggcgcgt gaaagtattg attggtgtga cgaagaaaat 960  
 tcgggcgatg actgcatgcc cgcgatctg gttgaatgtg tcggcgatgt cgtggaatat 1020  
 gtgccactgg ctggcttcgt cgtagaagcc gggggtatcg acgatgaagt atgtggtgcc 1080  
 gttgatttcc gtgtcgatta tctggcattt ttccgtgcct gggccggacg gcgggacgtc 1140  
 agctagacat caaaagggtga aaggctgtat cttactgga agggtttgtc atacctgtc 1200  
 cgttaccagc aaggcctgtc acttgggtga ttttctctgc tagtgatgac ttcccgacgc 1260  
 cttccttgcc gaagataaag ataactttgg ccgatgattt atcgtggctc ttgatcctct 1320  
 cgaggcacct cttcgtcctt gcagtggctt cagattcgtc cagcgccatc atgctctact 1380  
 ttatgttgga agacaaggga actaaaagga aagtgttgt atgttggcct aattgcgatg 1440  
 gcgaaggcag ttacagtacc caagcgtggg gaaccgggct ttatttatga aaagcctaag 1500  
 cgcccagtga tccactagaa tggtcatttg accgtgtagg tctgagagag tttctttttt 1560  
 tgttgtggca ctgaaaacga atggtgttta ttgaatacta ggtcttgggt gatgttgcag 1620  
 atacagcggg aagcgcaagg ctgataccaa atgcacaaca taacagagaa gtgtcagcca 1680  
 acgattcttg tgaatcatta gttttaggt aaggctcag ccttctgggc taagtagcaa 1740

ccgccgtggc ataagttgcc gcctacctag acagaatata agtctggttt cggcccttca 1800  
 catgttgcat ttcttgcata gaattctaga aaccctttgt atgattttat atctgggggc 1860  
 aagcaagcgg ccggatgtaa ctcaagaaat ctgtaacggt aagtgatgtg cttctataca 1920  
 actacgaggg agctacctgt caaagctctt tagagcccg tcatactttc gagaagtacg 1980  
 tggaaggatc gctcgtttga tctccttacc ataatgctcg tcgagtcggc ggggtcaatc 2040  
 acacgcataa atcttgctac cggttgttgt gccatgctgt ctgatcagct ttaggcatga 2100  
 aaaggggatg gggtgagggtg agactgatct tgaattattt atcaccgtat gatgggcgtc 2160  
 actttgccac tttgcccata tgtcaaaatg taactcttgg ctagctcggg tgcaagatat 2220  
 tcaggccctt gcattctcac ctgaagcgcc ggaacgtggg cggcaaagcg gccaaaggaac 2280  
 agacgctggg acgggtgagc tccgacatta catcctgttg tatgtttcta tatttctttt 2340  
 tttttttttg cattgaactg tgacctttgt cgatatcgat aaagcgcaac aattcctgac 2400  
 cgctgcttca agggtaaaaa atactaaacc tagggtgagt acagggtgca gcaaaggaga 2460  
 tcatcatggg tgcgtagtga atattacatg agcaggacta agtagatggc tgctgtaga 2520  
 ctagtggtaa aaagacatac aatccaacgc ctagcatca acaagtggcc tcttctcccg 2580  
 tctccggaca cggaaatcat tcttcaagtg gtgaaagttc aagtactccc ccaaccactg 2640  
 ccgaatagac aacagcgcac gaggcctcgg ctggtgcgca caacatccgg ctctctcag 2700  
 gcggcggatc ctcaacagga tcgcagtcag aggcagata ctccgcgtcg tccatatagc 2760  
 taatcagaaa cgctgcgatg ccgtacttga caccatcaac gttcgacatg tcaagcacia 2820  
 taagcccata ctgggcacag tcgccttaca gtggccagcg attgcagctg gacatcgccc 2880  
 ggacgcgtgc ggtggttgtt gcgcttgagt ttaggtctca cggaagcacc atagtcttcg 2940  
 ccgtcgctgt agtcgcacag taattccagt atcaggcacg ttgctgtaaa ggggaactcg 3000  
 gcacaggcgc gccacggcag cacaagctgc ggctctgtct gcttgcccca ggagtagccc 3060  
 tctggtacaa gaaaccgcgg ctgtggcgtg tctgggacgc tggggcgctg attcacatgg 3120  
 ggctcgccgg cgccctggaa ctgagactgg gtctgcgact gactgggacc gccaatacca 3180  
 gtccccagcg agaacctttt ctgcctctag cggcgcggtt cacgggggtcc gaaatgtttc 3240  
 aatcagcgcg agggatatctg aaacaaagta gtcgtcgcg gacacgaagg tctgctcgcc 3300  
 tgagatgtca tcgttgccct ggtggtaggc gatgactagg gtgcgggtgg tgccaccggg 3360

gccgacgttg gcgacgatgg cgaagaggaa tgagcggggg cagagattgc ataggttggg 3420  
 gtattcgcggt ggcaattttc gttgatggaa gttgataaga gatgtagagt tgatttggag 3480  
 cagcggttct gtattccata taaaatggcg cctttcaagg taagctttgg atgatcttct 3540  
 agttacttgg ctgacttacg caacattaat tgttgttttt ttactcaga ggggtgtcaat 3600  
 gctctcctta ccatgagcct cagtgtctgc atcttggacg cttgtggcct catcaaata 3660  
 caaattgttt gccctttgca taagcacgcg tgccagcgca aaccgctgtg cctctcgcca 3720  
 gagaagaagc tgtcagcggt agtaacaata aagctgacga gaactccctg gcctatgaaa 3780  
 aggagtactc agaacagttg gatttgctca ggcttcaaag ggactaagct ggggggcca 3840  
 gttggctcac tggggttggg cggcccgcac tgagtcgtga gcgttgatc cgtctcaact 3900  
 cagactgctt gagacagata tagggattga gcagagaaac agaatttggg actgggtagc 3960  
 cattcgcccc ctctatgccg gcgctctgcc gcttttcgaa gccttcgttg ttcttcaaag 4020  
 cagacatcgt aattcgggtga ttgttaccct gtctctagtt cttctgccac tccatccac 4080  
 ctagcttcaa ttcccaaaca gtcgagtcac gtcaaaattc tgtgattagg tttccaatcc 4140  
 tagcgttgac ttgtgatggg tgagccacaa gcacctgct tgggattctt gatcttcgat 4200  
 tatctgggtg ctgggagaaa gaagctaaga ataattctct tttccgcttg gaatctactg 4260  
 tacagtaaca aattacggga aagaaagcct tcgtacgcga gataaatgag tttgatctat 4320  
 tctcgacgac tgacacgacg gagctaagat tgggcaagca acctgaatga agatttagcc 4380  
 aatcatcttt gtcacccatg tttcagacga attgttctgc gaaaccgctg cagaggtgaa 4440  
 gggtagcatt caactaaatt cttctgttcg gactcgggtg accacaacac cgaaccgggt 4500  
 ttttactagc ttggtatcat ttcccagttc ctccagcgat acttacagcg cttctacct 4560  
 atcagaaacc cattcagata taaccatac aagcacgaac tgggtctatg tgggcactgc 4620  
 gataagtact cgtggggatt taaggtcatc cttatggcg tggtacaaca gggcggttc 4680  
 gacccttctt ggaaactctt tacaacacgc ggctggacc ggatcagtat tttgtgctgc 4740  
 aggttgggtt tgccatctaa gaacaaagtc ttgttgaatc attgttgtgg atatcttctt 4800  
 gaatcaacct gggctggatt attcggcagg ggaaggagat atcattacta caatctggct 4860  
 acaattactt gttaatgccg agggtttgaa agagtgtgga tagttcaacg ccgcgttgga 4920  
 gaggcgaaga tggaggacaa ttgggaatag gatggagagg acggtattcg gatgagacag 4980

tggtcgatct gtctagttat gtcgcgagct ctatacgagc aaaacttggg ctgattgata 5040  
 aacatacaca acgccacagc cgcataaaca agatacagtt tcgcgctaata ctgaaagtgg 5100  
 ttggacatga aatggcctgt tatataaatg gttcacttag catcgtgcga tctattatgt 5160  
 atatgttggt agacctgcaa tttttctagg ctctgtctcg ccaggataaa ataagatcag 5220  
 cagccttgct caagttgcta aaacaaccaa atcagatcac tcatatTTTT atctttgtgt 5280  
 atatgtgggc gaggtgagca tggtcagaaa actggtaagc tgccaatcag ggcgtggctc 5340  
 agaaattgat agattttgat tttagccga gggtttctcc gttccgcatt ctgagccacg 5400  
 atggcagaat cctgaccac gccgacctgt gaaccaccc acgggttaac cgtcaagaac 5460  
 ccatatgact tgaaaattgc tgagttataa acctagtaa ttatcacagc atgtttgcat 5520  
 tgccaacgcg cgggttacct aaaacatgta cgtgatacga atatatcatg ttgagcctca 5580  
 tgtcacgtgc cagtgatct gtatggcatg atctctggcc cctggcctga tccctcgagg 5640  
 aattgtacat tgaagaagtg agaactatcg tcatcaagat agagaatcaa tcgtcatatg 5700  
 acatcctatc cttagtaggc tacgttcgtg tagttgatgc agcttcttc tgccctttcc 5760  
 cctttgagca ttcataacac tatcaaataa tctactcaa acagaaggcg tatgccaaag 5820  
 tgccaaagt cagcttgtct agattattcc tttctcagg agcccccat ttctgcccta 5880  
 ttttcaaagc acttagctgg tgtactcgtc gcgcacaaca gtaatggcat ccccatccga 5940  
 cgttagcact gtagccctaa aaccttgctc tgatgttgct tgaattgctc tgttctttgg 6000  
 tctagaatgg cttcccatca actaggtcgc atcgatcaca tgtctgcat acattttctg 6060  
 aagctcgaac atcaatggat gcttgaggat cagcattcca ctatattctt actcccttgg 6120  
 tccggtactg tacctggaag acaaatggc cggtaaatcg tcgcgctcga gggagcactt 6180  
 gggaacgaat actgtagggc ggtgtgacat tccagcaagt tttcagcaaa ccggttcgga 6240  
 acaaggataa cccgtgtccg cccctcga tttccgatc ttttaaggta accacctccc 6300  
 ttaggttga attcggcgac tatatttgcg tacggccaca gacaaacccc ctatcgtgaa 6360  
 aactgaccgc agaacgtaaa cgatcaaagc tcgagatttg taaccgctga aaagaaaccg 6420  
 ccgtacgtgc gcctgaacgc caacaacacc gcgtttttaa gaagggttac cttcgacttt 6480  
 gatatgggtg aagtaggaag gcaaggcgat tccaagagtc tagattgcag ccaacattac 6540  
 aagccagctt cggaactgt tgtctaggta atctcccat cagagcgtag tatgttttca 6600

ttacgcctac caaataaagg cacagtatag cggtaacacc ggtctccaag aatatttcat 6660  
 gtcaacttgg aataggacag tctaagagta atctagaagt tatgacacct ttttggctta 6720  
 gcggtatatt ttctcggta ttttattaga gagaaaagag aaaattgccg aatactcaag 6780  
 acctgggtgg ggaagaatac aggattcaaa ctatcaaagg atccaccaga cattgcttga 6840  
 caattaacgt aaatccccgg cggttgggtgc gtccccggcg gaaggtagtt ttctcgtcca 6900  
 cccaacgcg tttatcaacc tcaactttca acaaccatca tgccaccaa agcacataaa 6960  
 acaaagcaag atttaattga gtaagagggc aggatataat gcgcgattca agacattaaa 7020  
 aatagaaaat ttcaaaaaat tgcgcccgc ggcggtgcat acaaaattca tccaatata 7080  
 cttcaaggga gacttcatgg ccgccaatct caagcagaac tctgcaacca ccagcatagg 7140  
 ctatccctat attaagaaga ggtcttgata ggataaatag tattacttga cattcatgga 7200  
 gcagctcca ggcctcgcg cgtacgtgag atggcacaac ttatcctgga tgaatcctca 7260  
 accctatctt gactgattag aaagaactgg gtaacagagt ttacaaaaag gcgcctgaa 7320  
 atcaaaacca gggttgcttg gaagattaat catcagagag cactttgtga agatccaag 7380  
 ataattcacc catttttcaa tgagatacag aggattaaag ttgagtatag gatattagat 7440  
 gatgatctt acaactttga tgaaactggc tttgctatgg gcctaattgc aacaataaaa 7500  
 gtagtatctt gagcagaaat gccaggcaaa ccatggctta tacagccggg ggatcacaag 7560  
 tgggttacca ctattaaatg tattaattca actggatggt cagttctatt aactattatc 7620  
 ttaagggaa agcactatag agagggatgg tttgaggaac tctctattct acatgcctgg 7680  
 aggattaagg ttagtaataa tagatagact atagatataa ttgggctttg ctggcttcaa 7740  
 aatgcttta ttccagctat acagaggtgg caaagggggg agtatatact ccttattcta 7800  
 gacagccatg gaagccactt gaccccgcc tttgacacta tatataagga taataatatt 7860  
 atccctgtct gcatgcctcc ttattcatct tacttctgc aaccctgga tgtgggctgt 7920  
 tttagccctt tgaagaggt gtacggatcc ctgattaagc agaaggcacg ctaggatac 7980  
 aaccatgttg acaagcttaa tttcttaaag gcttattcag aagcctataa gaaagtcttt 8040  
 ataatagaga acattcaaag cagattcagg gcaactaggt tatatccttt cttacctgct 8100  
 gcagtactgg ataagctgta gtaagacta ttaactccta cccccccc caagcagagg 8160  
 tactgcttta atccctcct ctcaactctg tatgccttat acagtctgtc aggtatatta 8220

aaaagcttta tcagtcaaaa agcttctaaa agagggctct aggagtcctt caagcccctc 8280  
 aaaataggcg ctggatgaat ttgtaaaggg ctgtgaggtg gctatttaca atgctaggtt 8340  
 gctggcacag gaaaacaagg atctctgctt atttgtagca gataacaggc aaaaaagagt 8400  
 tgttctaggt gtctaataac tcttacagat ggactcttat ttaaagaagc cagggacctt 8460  
 atttcatcga ggaataataa attacaagct ggtggggggg gttcaagctc cagtaccctt 8520  
 ccaacttcgg agagacttag gcgcgcccc ccaaggtgta caaattgcgg agtacaaggc 8580  
 cataaaagaa caagctgtca ggttcccaat catccttagt ttatttagtt tggataagaa 8640  
 ttgatcgagt tattgaaatc gaaagtttgt atagcagtgg ggtggatgag aaaactacct 8700  
 tccgcccggg acgcacctac cgcccgggat ttacgttacc gctcaagaat tacctaagct 8760  
 tgcttatata actataaaat ataactaaga agtttctatc agcccgaact caaatgttcc 8820  
 atgataaaaa ctagatctcg caactacttc gcaaaatggg gaagtttctg caagtgctaa 8880  
 tgtgtaagta tctcatctga ggattgcacg ctgataatgc taataagaag cagcatggag 8940  
 aaaaggtgcc aaaaggagaa ctccgcgacc agaaaagaag aaatcagatt tcagtga 8997

<210> 4967  
 <211> 4915  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 4967

tgattgccga atgcattgct gcatgggttcg gggcccaggg cactgcggga taccgaggtc 60  
 caatcgacaa tggccgccta aaataaaggc cattctggtt tcaggcagag gtcacccggt 120  
 tggagccagg aacatatgca aagatgcctc gtcaacccca gagaataata tataccgcaa 180  
 gtttgtgctt taagatcgat tcgtggctgc catacctaag cgcttagaca agcggggctg 240  
 accagcctgg gccatcttca gctttagctt caccttcagc cgcttcgtc ctgttccctt 300  
 catcttcttc ctgcgaatc aattattgca tcgtcccctc gtcattctat cattttcgtc 360  
 gctttcttcg ctgagaccct gttttcttgt attcgtatca atcatatttt tattcatttt 420  
 ctagccgcat tcttccattc aattctacag ccagaatgac ccgaaccac cccagctcct 480  
 ttcagcagct ggaaaaggta agcaagaatt catatccaaa cagctcaagc agaagactat 540  
 tcagaagcat gcgactaatt tctcagcgat agctcgggtg aggaacttat gccacgggtac 600

ttagctgtcc cgccccgccc cccctaccc gtccccgcg atgatgaaca cctagcttac 660  
 ctgcggcagg tctacaaggg ccggaattgc caaacagggg agatggtggc gctgaaggag 720  
 attcacctcg actcgggaaga agggacgcca tctacggcga ttcgcgagat ttctctaattg 780  
 aaggaactgc accacgataa catcctttcg ctatacgacg tcgtgcacac cgagaataag 840  
 ctcatgctag tattcgagta catggaccag gacctgaatt attatatgga cacaccacgc 900  
 aaatcatggt caacttgagc ccgcgatagt caagtcattc gcttttcagc ttctgcgggg 960  
 tatcgcgttt tgccacgata atcggatact ccaccgcgat ctcaaaccce agaattctgct 1020  
 tatcaactcc aagggccaac tcaaactcgc cgatttcggc cttgcgcgcg cgttcggaat 1080  
 tccagtcaac acattctcta atgaggtagt tacgctctgg taccgcgcac cagacgtgct 1140  
 cctcggcagc cgcacctata atacgacaat cgatatctgg tcgatcgggt gcatcattgc 1200  
 ggagatgttc actgggcgcg cgttggtttc taggcacgac gaatgaggac cagcttcaga 1260  
 agattttccg cgtcatgggc acgccttctg agcgtacttg gcctggagtt tctcagtttc 1320  
 cggaatacaa aagtgatttt cccgtttacc ctctcagga cctgcgacaa gtcgtcccta 1380  
 ggattgatcc atacgggtctc gacctactcc ggtgtatggt gcgccttcaa ccggatttac 1440  
 gaatcagtgc cgtcgatgcg ctgcgacatc cttggtttaa tgatgttcct ggggctcagc 1500  
 cagtccctgt gtgattcgta gccaggtagg aacaaagaag ggctcttcgg ctatcgctag 1560  
 cgatattcct gtacagcacc acattaatgc ctcagtagct tggctctcca tgtgagccag 1620  
 ccatggatac ggagcttagt ttctgatcta cctattgatc atggtatgga ggctctcact 1680  
 tgacgcgaat ggaagatca aatggcatac tatagagtcc ttctctgggc caactttgca 1740  
 atgggacaag cgggagattc atcaggcgga gttcaccgca gagtgactct taccgtccac 1800  
 catcttacia gtacactggg acatcgagta ctcttgccct agtgaaaagt cagcctgccg 1860  
 tgcaagttga cgacctcttt ctagtgccgg gccaacgtgt gagcttggtt ttctgttttag 1920  
 acatcatgcc atcaagagcg ttaccataaa gtgggaatct gggattact gaaagtgtgg 1980  
 cattccaaag cagcataagg cgcacagac tgcgtgaact ctgcatctaa agaagcattt 2040  
 atattttgca cccttgcatc taatcctact gtatatactc ccaaggatgg aggcttcggt 2100  
 ttacgggata tgaagtgtcg tagctagtgt tctccgaagt ccgctcctca tacgtgtatt 2160  
 cgtgctatat tatcccttgt atacacacgc ggaaagctgt cagagggtccc ctttccgaag 2220

tcacttcctt gctgcgcacc attagacatc atctcgatat cataatcttc gtcacccaca 2280  
 gcccttccag aataaaccag acgacgatgc ccatcgcttc catggagaat gatatcgcca 2340  
 cccctcacct gcttttgaaa ccaataatcc cgcacccgat caagcgcggt cttaaagtca 2400  
 tcgaggatca ccgtatcgca aagacacttg aatataaacg acaactagat atccatatca 2460  
 gcactcgtcc cataggctgt ctgaaacgcg ggtcgcgggt ttagcagagt ggctaagtgc 2520  
 ataccttcca gaacggctgg acccctgaag gaagcgatgc actgttaaag acaccgagga 2580  
 cactacattc atcgacgaca acaaatgcaa gcgagaggca cattgaggcg agcataattc 2640  
 cgaaccgcgg actaattggt accagctccc tgatgccaaa gttgtattcg cgttttatgg 2700  
 tatagaagag cgagatcggt gttatgacct accatggatc tctatcgatc atgcccattg 2760  
 cagctttaga gtcgagtaac cagaaccgcg aaaaagagag agtggataga atggacatgc 2820  
 cagcaccga aatagcgggt ccaaaggcct ggtcgtcaaa aatatcttgt tgacattatt 2880  
 gaaatacgta aaattcgcat agatctctag gaccagtagc ggctgcacca gcaggacagt 2940  
 gatgatgtag atgttcgaga ctgcctttga gaagaagggc ctgttcttca tccaggcaat 3000  
 gacgttgtgt agagaccatg atacattaag cccgattgcg ctggcagaca ggtgccaccc 3060  
 atagatgggt tccttgagga aaatccaggt gccgtggggg atagcgagga tgagctatta 3120  
 tcggattgat ctacagttag ttctgggtga aataggacag gaattgggtg ctaaggatgg 3180  
 ctgtgcacct ctgcaaagat cagcttgtgt agcagaatgt gcttcctcat attgctgata 3240  
 gtgactgcgg ccatcacgac cagcgacccg accatgagac cctggcccca ggcttcgagg 3300  
 accaggccgt ccgggtcggt gggacgggtg atacggtcag actctgcggg agagttcatt 3360  
 ggggcagcaa ccacgtggaa ttatggtgcg accattgtgt gatgggtttt acgaaggaga 3420  
 ggtggcaggg gtggacgggg tggacggggg ggacccttta taggatatat ataacatagc 3480  
 gtaggggact tgagaggag cttgggtaag cagggatcgt ttgaggagc gtgtgctggt 3540  
 taaatacgag ttacgttggt gggctgatat tcaaagatgc atactactag tagactagca 3600  
 ttgacggcat ttgactggca tctaacttg ctttgactct gctcttcaac gcgtcagccc 3660  
 atgccacttt ctggcagggg atatagtggg gtccctgttt caaggcactg ttcgcatcca 3720  
 aaccatgcca tttagggaat ctggggtggt gtggggtaaa gaatgggggtg atggtctata 3780  
 ggccagtgcg tgccctcgca gtgtgactcg cagtgtgaca tagggctgga aatcgaggaa 3840

atctccagaa actggggaac gaataataac gcgaaatgta ctctgagaag ctgggatcgg 3900  
 tcaaacagcc gatccaaggg ggaggaaatc tccggttgag aaatctaggg cctcttggtt 3960  
 gactctgatt cgcttttctt tcgagctagc gtcgcaggat tctaattccc cgtccattgc 4020  
 cgacgctatt ttgtgaggct ttcattgtgt tccactgtag gttttccatc tggctcagtg 4080  
 cctgctccga tcatactttg catccccctc tgagagactt tctccttct tccagtactg 4140  
 ttataaaaaat cttctttgtt cttgtttcac actgtttatc ctctctctca tattgcttgt 4200  
 ctacactcat tctcctctta ctgtcgattc tgatcgtaa tcacctcgga gttagaatca 4260  
 ttctcctttt cttctcttag ttctaagctc gtccttgta cttatccgta ctatttgacc 4320  
 gcttccttct ttctataaat aaacttttct ctcttcttta attcactgtt cccatcacta 4380  
 ctctatgatc tctcctattc ctgtatgact tgaaaggaga taaactgttt cattcctcgt 4440  
 tctcctctt atgatcatct ttaactaaat ctcacattct cccttgctt cctctatgat 4500  
 aaattatact tctattcctc gctctcatct ttctcacct gtcttcactc tcttcaattc 4560  
 ctgtccctat ttatcttctt tcttctctac tataggtatt acctttctct tgtttctctt 4620  
 ctggcacagg gctcctctta tcgctttccg ctaattacaa ctatcgatga taggctgttt 4680  
 acccctcga gggttcccca tacttttcgc tgtgcttga ccacacacct ttctaccgtt 4740  
 ctaaggctct ctatgtcttc tcattactca cagtgaatt actgtgtttc cctacttccc 4800  
 tccttctac atccatatca cctattctct aattctatcc ttgtctctct ctgtgatgct 4860  
 ctatttcccc aacctttctc gttccttatt acgtatatct attctcaatt cttgt 4915

<210> 4968  
 <211> 2561  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4968

ctgaagggga ggaatcccca acctcgacgg acggcaccct gccgctgcc tctgcaggct 60  
 gcaaccaccg ctctggacga aactgctcgg cgtcgtcccc gtagatttcc gtaaaccctt 120  
 gcatcgctcg gtagaataat gcacgatcg cttcttggcc acgaatatag gctggcatcc 180  
 gtcgacgcct ccgccgcgcg ggaggaaatgt gtgttggtgt gcgcaccgga tgttcgtagg 240  
 gactggaggg aggaggcgga gggctgaagg ttgggcgtgt gcatccttgt gttagccagc 300

cgcccaggca ccaaatacaa gtcacgggat aaggcgtggt gggttctgca taccttcatt 360  
 caacactgcc cgcacatact tcactctcgcg gagctgggta tatgtcggta atgggcattt 420  
 cccatctccc tgggttgcaa ggccaaactc tacaagcacc tccctctcca gtttccgcca 480  
 gacgctcgga tgccgtgcaa gcatatagaa gacactgctc aacagtcttg ctgtggtatc 540  
 cctcgcgccc aaaagcacgt gcagcagctg gctgcgaatc tgcacgccgt cgctgactgt 600  
 gtcggctagc tgggagagaa ggtcatacca gccctcgctc tcgctctcat tcccacaccc 660  
 tctccccagc ttgcctctat tctcatgagc cggactccta cgttgctcca gagcctcata 720  
 gacgaactcg tcaacagccg catgcacaat tacatcgta acaaacttgg tattcttcac 780  
 gagtccccga aacggaccta gattcgcccc gacctggaga taagaccggg cctcgctcgaa 840  
 tgctgactg aacggttcag cgtcgaagtc tctcgcggg cttcttgca tcttgccgg 900  
 ccgccaaga agtgaatgaa tgcgctgtcg agagtcaagt cgcgaacgag ctgctggagg 960  
 ttgactatgt catatcctct gggaatccga tagagtcgac tttgaacgtg ctcttcgac 1020  
 agcaggaggt caggtaatgc ttgcgctctg ttgaagatag gtctgaggag cgccctgctc 1080  
 ctttccatt cccttcgctc ctgagtgaat actccgctc ccaatagcgg cctgaacgcc 1140  
 gcgttctct cgcccaggtc gaagtcaacg aactttgttg ctagtaccgc cttgatattc 1200  
 tccgggtcag gagtggatac atagcgttta cctaagagga ccgcagacat ggttggggccg 1260  
 ttggccctgt gatttcattg tggctatgga gagtgatccc gttgcgagca ttctgctgca 1320  
 tgcgcttgaa gagggcgagg ccgaggactc tctcgctttg ccggagaggc cgcgcaagga 1380  
 agaggctgtg ggctttgcgg taccgatggg ctgagatggc tgctgcgaga tttgtggatt 1440  
 gtgatggtga tcgccacggg ggcggaaaag gcgcagaggt ataggatccc gtggcacata 1500  
 gtgactgact ctctcgttc tcccttctct tctctcttc ttctttctcc ctctctatca 1560  
 acctgattct aggagtgcct atcttatgtc aaaactatcc ttcgcgttga aattcgcgga 1620  
 gtgtaaccag gtaggaggcg tctgttgaa gttaaccagt aaagtcagct tacgctccgg 1680  
 tgggagttaa gacagcttgc ctgcagcta aagtagtggc atagtcgata cgatgggcta 1740  
 cgagttgtgc agtcttctgc agtctgcagc taaactgatt ggcctaatat cttgatattc 1800  
 tgttggcggt gcttgcatca taggggtgtc ttgtgtgtt ctcttcacgg ctgaacagtg 1860  
 aatccctgca ccctcaagcg tcgttgcttc ggacagcagc ggcagcagtt gctccaattc 1920

caacctcagt ggtcataata ctctcttccc gaacggtata atcggtccac ggtacattga 1980  
 cataatcatg tacagaacag ccttacaccc agcaagaccg actccgcgtc acagcataca 2040  
 ctctcttcgc cggattctaa cactcgcact ctgcgacgtc tctcatcttc tctctccctg 2100  
 gggcccacca cccccgtcag ctggtgctgt acggcaccgc ccccatggcg agcgagattg 2160  
 gggactgtgt gtgtgtcctc gctgcggtct gcaaacctgg gtgtgaatgc ccgcgttggg 2220  
 gggtagatat cctctagtca actactcgag gacattcacc ctgattcaac tattggctag 2280  
 gcttgaatga gacaccttgt gcgggctgga atgcgcaggg gatatttcag ttggtgacgg 2340  
 ctagtttgcc gtctgagagt aacagcgcac acagcaggcg tatgctctct ctacttcac 2400  
 ggcaattgcg ttcgttttct gttcttgcac aggcttgctc ggatcgcgcc atcgagggct 2460  
 tgaggggtgt gaacagagtg ttagcaatat gctccagctg gaaaatagag gagaattttg 2520  
 aacagcctaa agccctaact accttcagaa atcagaacct c 2561

<210> 4969  
 <211> 4761  
 <212> DNA  
 <213> Aspergillus nidulans  
 <400> 4969

caatggtcgt atgatggaca gcgccattct catggactcg gggtgcctga ggcgtcaaga 60  
 ggccacggga tcatggggtg cggttttacc aaccatttg ctaggacaaa agatgctgtc 120  
 agagaagatg agacacatgc aacatctaca tcattaagcg cgcgaccggt gccagaagca 180  
 agaacaatag aagctctgta ttccacatca tagtatccac tagtcaatt ccaaaattgc 240  
 gatggatgtt taagagtctc gacgcgtttg ttggaaaatc gcttgtcgcg ccttgggtctg 300  
 cgacacgacc gaggcgaagc actcccgaac cagatcaacg caacgcggag acggcaaggg 360  
 aaaacaaaag agcgtcgtc aagtgtatga caaatttgtt tcatgcagtc acatactaga 420  
 attatcagga taagaaaaga tgtacatacc gacaaggctg gactattaaa atgccgactc 480  
 gcgagcgaag gatggatggc cagtcccga atagcagctg ttggcaggtt gtgaaagact 540  
 gcgagggatg gaaggtcacg ggaccgcag aaggaaacaa gaggcccgtc tgatggagac 600  
 caaggaagtc agcaaataat ggctaccagc tccaacaaca acatgaatcg aacgggagac 660  
 agcagcagaa caatataaaa gagttaattg atcatcataa gcaagaagca taacgatggt 720

atacaaatga ccagaatacg tccgaagcaa tgccataaag cgcggtgggt cgcgcgaata 780  
 gtcggccagt gaagtgcgtg gccacaagag agcgcggcgt gtcacaggcc caatgacggg 840  
 aagataggca gcgggcagga tggatatgaa acaaaggacg taccttgcaa tagtacacca 900  
 tacactgtcg tacggtatga ccttggccaa aattgtgtat tttatgaaag actaatgata 960  
 aagacggaat tttcgatcgc ttgaaaagcc gatgagtgga ggcacaagga gatgggggat 1020  
 gccgggaatg gggacaggcg tggaggaagg cgacccaga tacgatcaag ggtggctggg 1080  
 agatatcaaa agtcagacag agcctgacgt ataagtttcc agtaagttat tttaccagat 1140  
 ctgagcagta ataacttag cagcagagac acaggagaag caagtcagtc ggtccgtag 1200  
 ttagcaggaa aggggtttcc aactttccag tggcccgcc gggatattgc gttcttccgc 1260  
 tccggatgga tcccgtagaa tgccacagtt ctgcgcttgg ccattcatcg ttcaagcatg 1320  
 gaatgccgtg cttagcgggg agatgatcat atctcttga ttctgcgagt agcggctgga 1380  
 agatcattga gattgctctt tgcccggtca aggggcctca gaatagctgt tgggattttg 1440  
 ttagcatctg cttcgaatta gctcagttg ttttggcca acagagcctc ccaatgctcg 1500  
 tcgcaggtg tcccagctcg atcagcgcca atgcagtggt atccacgac atgatgtaac 1560  
 atggcttgca cggccggttt gtgaagaact ggacatcctt tgggttaagc tggcaggatt 1620  
 tgacagcttg ccgctatatg gaggatcaga agccatacct tacggcaggc gtttaggtta 1680  
 gtaggtagaa agatgcagtc acaccaagaa ggccagtgtg gcgactcaat cagaaaggaa 1740  
 atcgccaaca gaagcagatt cagagaggca atcagcacga gggaaaagag aggaaggag 1800  
 ggattggaga gcagcttggc cacggagaag agggttattt ataagcgctc acgctgcca 1860  
 cctgatgaa atgatccgc caatcttcag cgcgttaaaa ggtatggatg agcagtgcg 1920  
 gagctggaac tgtttgaaa cccctcgctg tatccgaat taatccttgg gcgcatccaa 1980  
 ctctagattc cttaatcacg ggattgcgag agaccaccgt gccttgcca tggatttgc 2040  
 gtctcacctg ccacgtccat ataactgctc cactacgatg ggagattgag ctagattgaa 2100  
 aaacatggg ttgctactag acgaggtgga tgcagaggtg catagaatgt ttggccagcc 2160  
 gcgaagagca ttgctcctaa gtctgaaact aaataaaaca gatactccag ccgcagtaca 2220  
 gccgcagttg accgtgttgg ctgctgcgtc atattggtag tctggcaatt ttaaagtcgg 2280  
 tgatctctgc cgaactggcg atcaacagtg gtagagttga gggtaaattc tcaaattccc 2340

agtatattat tatggttaca cgccatactc aggaagaaag aacacctctc gccttgaatc 2400  
 agatatttca tagtatgtgc tccggccgag cagcattaat cgaggtaatc gtagcgaata 2460  
 ggcttgctac tatcctggat acggcaagcc catacataca tgcattcattc aacgctccta 2520  
 gtttagccag agagcttttc tatctactca aggtagctca aaccaagatg agttttggtc 2580  
 tgcttctgac ggattctttg ccacacaaag acgccaagat tttggtcacg tgaccaagct 2640  
 acgtgagcaa cggctatcgc tgttgctgcg tagctccaga cactgctcag acaaggctct 2700  
 taaacacttt tgactacaac catcttccaa tcattcctga tctttctcag acgcccgcag 2760  
 atctttgacc tttctaattt cttagctaga aacattcgc aatgggagata tcgccgtgga 2820  
 aaacccggcg agcgtcctct cgtcttacac gaaggcagct cctttggata ctatccccgaa 2880  
 catcgattca ctgaaggaa caggggccga tgatggcgat gaatacgcga ctttgaagaa 2940  
 actgcagagg cacctggagt atgttttgcc tacacatcga agcccgcctc gtgagctgat 3000  
 caaaggatta caggtacatc aagctccaag aagaatacat caaagatgag caaaggtttg 3060  
 cctgccgccg cgggttcgca aagccgctta ctgatttgat taaataggag cttgaagagg 3120  
 gagctagttc gtgcacagga ggaaatcaag cggatacaga gcgtaccctt ggtgataggc 3180  
 cagttcatgg aagcgatcga ccagaagtac gacagtcata ctcgttgta aggctcaggc 3240  
 taatgttggc cccagcaccg gcattgtaca gtcgtcgacc ggctcgaact acgttgcccg 3300  
 cattctttcc acccttgatc gcgaaaagct gaagccatca tcctccgttg ccctgcatcg 3360  
 ccattccaat gcccttgagg atattctacc cccggaggcg gactcttcaa tcgccatgct 3420  
 aggcgaaaac gagaaaccgg atgttacata tgcggacgtt ggtgggtcttg atatgcagaa 3480  
 acaggaaatc agagaagccg ttgaacttcc tttgacgcac tttgacctct acaaacaaat 3540  
 tggatatgtt tcctctgtgt actacaacgc cagtttccag ttctgattgt ctttctccgt 3600  
 ttaggtattg accctccccg tgggtgttct ttatacggcc ctccgggtac cggaaaaact 3660  
 atgctggtea aggctgttgc aaacagcacc actgctagct tcattcgggt gaacggctcg 3720  
 gaattcgtgc agaagtatct cggagaggga cctcgcatgg ttccgatgtg cttcagaatg 3780  
 gcgcgggaga actcaccggc aattatattc atcgatgaaa tcgatgccat tgctacaaaa 3840  
 cgtttcgatg cacaaactgg tgctgatcgc gaggttcagc gtattctcct ggaacttctg 3900  
 aaccagatgg acggtttcga gcagactagc aatgtgaagg tcattcatggc cactaaccga 3960

gcagataccc tggatccagc cttgcttcga cccggggcgtc tggatcgaaa gattgagttc 4020  
ccctctctcc gggataggag ggaacgccga ctgattttct ccacgattgc ctctaaaatg 4080  
tccttatctc ctgaggtaga tctcgactcg cttattgtgc gaaacgagcc tttgtctggt 4140  
gctgtcattg cagcaattat gcaagaagcc ggtcttcgcg cagttcgcaa gaaccgatac 4200  
aatatcatcc agtcagacct tgaagacgct tactcagccc aggttaagac cggacaggag 4260  
gccgacaggt atgtttttct cacatcagct tcgatatcta tgcaatagcg ctaattttca 4320  
ttttgcaggc ttgaatttta ccggtaaggg ggagcgtctt tactatcggg ggtagtgttt 4380  
cggctgtgca tagcaagaag gtagaaataa actgtatcac caaatcttt gggtagcaga 4440  
tgtggtaatg ggctttctct cgctactggg cagctagtat gctcttgta gaaaactgat 4500  
aagttaagca aacaagaagc cttgggtgaa ctaaattcgc cattacatcc gattccaggc 4560  
tgcagtaata tatatcgctc cggcacggat agatataaat cacggagtcc agtagctgct 4620  
cattgcttct aatttatggt tttcttaggg ttattcgaac agctcagtca attaaagtga 4680  
aatgggttc gattctgcag gcatgagaag agtccattca gccacctacc tcggctgact 4740  
tcaaggttcc caacaaggtt a 4761

<210> 4970  
<211> 9627  
<212> DNA  
<213> Aspergillus nidulans

<400> 4970

caccaatgaa ttgcttcact ggcgctgtcg aacaacaggt catcagaaat cggtcattgct 60  
gggtgttcttc agttcatttg gctcttggcg gctgggcac tggcttcaat tctggctaca 120  
attctggctc aatccaggct tcaaccagg cttcaattgt caggtagttc ttacctttac 180  
gtactcctcg agtatgtgga ccgtcccga cagagtgccc aagatccagg cgcttgatc 240  
gtcgcaaaac aagaatccac ttccataaga gcttgagatc cgtctttctac tcagagtaga 300  
ctctacgtag gaagaaagaa agaaagaaag aaagaaagaa aattgggccg tcttgccaac 360  
tgattgccaa ctgatcttgg atcgcgcgat atctgagtca ggcccttgac ttaagccccg 420  
cacgctgtca ctgttatcgg ttcacagcg tctaagccag acaaattttt taataaaaaa 480  
atttttaatt cagctactgt ttactagcat acggagtgca atctaggggt gtagaaatgg 540

cttgtcaagt cgccaggaaa taataccgag tattaaaccg tgagattggt gatatgcagt 600  
 gatatgctaa ttctaacagt gaccggaggt ttccatctct ttttcggact tttgtccagt 660  
 tactccgcca tgagacactg tcgttaaate taccgtctgg gcataccacg gccacggcct 720  
 ccaccagag cccgctgtgc agcaactggg ggcaggccgc gcgaagggtgc ctgaggcgca 780  
 gcaaattctt ggttctctgt ggtagatgtc agcgatttgt ttctcagaag agttagtaca 840  
 tgctaggagg actcactgat agtctcgtca acgctcagaa tcagacaagc ggcctcgacg 900  
 gccgcttga tggcgttgac cttgaccagg ctaggttccc agacaaaagc ggccatgttg 960  
 tcccggacgc cttcgtggtc aaagtccaca ccagcccacg tgttgccctt gtgatgttcc 1020  
 acccgagac ggttcaggat gtcgtagcg tcaaagcctg cattgtcgca cagctgtcgg 1080  
 ggaataacct ccagagcctt ggcaaacgcc ttcacaacgg cctgctgctt gtagggcacc 1140  
 gttttggtcg gcataccgat ggaggtagcc agacagctcc agttctgtgg caccaccacc 1200  
 cgcaacgatg gttgtgttgc gcagtgcacg cttaacaate atgatggcgt cgagcagact 1260  
 tcgttcaact tcagcaatga actgctctgc ttcaccgcgc agcacaaggg tgcaccgttt 1320  
 tcgccttggg gcaactcgaa aacaggttgt accgctcccc accaatctgg cgctcctcaa 1380  
 acgagccgca ggtaccacag tggcggtcct ggatatcgt gcattgtggac tgaacggcag 1440  
 caccagtcgc ctggcacaca cgggtccatat catctgacgc aacacgacca gcacagaaga 1500  
 cgtcgcggtc cgcaaagtat ctaggatgaa cgttagaatt aagcaccag ggaggcgtca 1560  
 gcgtagacgt actgtgtagc caagtcacca ataggcagtt tgctgagaac gaccttggcc 1620  
 cctgatttgt agatagcctc gagcttgttg tagatgatct gccactccgc atcgacgatg 1680  
 gcctggtact cggacacttg ctctactcga acctcggcgt tgccttttc actcttcagt 1740  
 tccaaactcca cattcaaaca cacgatcttc gggttcttaa aggacttggg ctggtgttcg 1800  
 aaaccggcgt aggagaatgt ctttttgaat gccactccat tgacgaagag agagtcctgc 1860  
 agaccaccgc cagtgcctt tttaaccca atcaacttct cattcagatc gtcttggtcg 1920  
 agcgagagaa ccgcatccac aaccactagt agaggtagt tattaccgtg cccaacgcac 1980  
 tcaggtcgac agccagatta ctacttttc gtgaaaaagt ccgagttccg cttgatcagt 2040  
 ttgctgttca tggcggttgc agccagccgc cgcagagtct caatcttctt ctctcgtt 2100  
 ccagcagcgt caatcatgtc cacggcaatt tcctttactt tattgacggc catcgcactc 2160

gagggttcgta gacccttgac aatagtttgc gcgctcacac cctgttcaac caactcccg 2220  
acctccttaa gaatctcacc cgcgaggacc acgactgatg ttgttccatc tccaacttcg 2280  
gcatcttgag agcgagcaat atcggttaaga attctggcgg ccgggtgcac gatattctagc 2340  
agctatacag cagaaagccc gtcagcaaac ttttccttgt gtcttacacc aaccaatagc 2400  
aagcgaacct tcatgactgt agcgccatcg tttgtgattg tctgcttgcc gttgctatca 2460  
acaagtaaca agtcacctcc atatggtcgg agagtgtctt tcaactgtgga ctgaacggcc 2520  
acgcaggcat tgatattaga gaggatctgg ccccttcctt gcgaagcatc ggtgcctatt 2580  
taatagtga aaaataacat gggttagcag aagtcaacaa cctcaacaca cattggcgaa 2640  
gaggggttcg aaatgcgggc ggaaccacc ctctctgagg acaacgatgg tgggagtttg 2700  
gccagcgaag gccataatgg tatatttgct gcggagaaga acagataata agaaagaaac 2760  
agttgtgcaa gaccagaata ataggggcca gcaggagacg ggtgatagag cggtccgtcc 2820  
gaatgctctc gacaaaaatt tccccgagct tctcattca tcgcacctct agcactgagg 2880  
cggtgaccaa tcacgcccg ccccgcaacc ctactctgag ctgtaaaagt tgtagtctag 2940  
gacagttacc tctgacttac aacatactcg ctaggataat taaagagcta ccttcattct 3000  
caaagtctaa agagtcaggt tctgagattg gatgacaaag tgggtgattg cgtcttgccg 3060  
ttgtgtaatg ctgcttctgt atcgttttca ggatataat tcatgttctg aggatcaaac 3120  
ggagacatct tagaactatg ttacatataa taatctattg atggcctcgg gactataaca 3180  
agacaggata tatttatcga aaagcaccca cgtgcttagc gaacaaaagt tcgaacgccg 3240  
tttcccaaac acctcgctcg ctatgtcatc gcatgcaaat atgaaaacaa gaaaagcaat 3300  
cccgatatata tacaagtatt cgttcgacta gtatgaaagg tagattcgtg gctgagcaaa 3360  
aagtcggttt cgagattcga ttaactttgg cggagggtgg ccctgaagtg cttcagcagt 3420  
tactcgccat cggcgccagc aattagtcga ctgatgataa gtatctccgc aaaaactgca 3480  
gcgcgtagtc atcggttcg cttgaggatg gcttgggcta tgcttgggag gctggctgta 3540  
gctgtggcgt gctctcgctg tttgctcctg gtctcgacgc atctgttga tgacatattc 3600  
attgatctcc tctgactgg gccgcttaga atgaccacgc cgtaatgccc gttgattctg 3660  
catttctga acgacaaagg aattgatatc ctctgcgtg agggaccgag gcgtctgtgg 3720  
tacctctgac tgggcgaaag agaccttgcg tgcagagccg ctctctcgct tatcccgcg 3780

ttgctgtaga agcagctgct cttgcttgag tgctaggtct acaagttctc gaaatgacat 3840  
 gcaaccggtc aggttggaag cattgattcg actgtcccg c agcatagcca atgcccattc 3900  
 tctccattca ggacgtgatt tcaacttggt cagaaaatgc aggttgattt gtgagtctgg 3960  
 aattttgatg tcctcatcga tcacgtacag cccctcgcgg acagcatcta tgagagcaac 4020  
 aaagtcggaa acgaaatgcg gttgcgttga gtctatatca aggaactcgt cgatttggtg 4080  
 tagtaaacgg acattccggg gccaggaatc catgttgctg cgttgagtaa aggaaggccg 4140  
 taaaaaacat aagacgtaag atctttgtca ggcgtttatt atgtgttttc tctgcatcag 4200  
 aggcacaggc tccttcgatg gtttggcggg cgcttccaaa tcatgtgtct agcatgacgt 4260  
 cagttagcct tgtattgtcg taaatacctg tatcttcccg cctcgctgag cttttcagcg 4320  
 cgtattgcgt taccaccaa gcatcagcag agcccttcaa tttccatttc ttcaggactt 4380  
 tctcagggga tctggatcat ctgaccgggt tcccgtcatg gggcctgtga tctcctgaga 4440  
 tatctgggag accatactca aacattgatc gatgttgcta ctcgcaatct acgaagtaga 4500  
 cactaagttc gctacgcggc gctaactaga tggcagtga tttcccaaaa acatcctgat 4560  
 ttccactcat tatagggtcaa gtcagacgcc catgactcgc tcaggagtgg cagggcccat 4620  
 cgatgtttgc ccgaccctgt tgcagtgcc tcatcgcgct catctatcac ttattattat 4680  
 tttcgcttga cgagcctacc actgtcttcg gacagatacc ataaagctat gttcgcacag 4740  
 tcctagacct ccagacaggt acgtatcgaa gcggataatg gagactgtgc cgccgtccta 4800  
 tgaaactgca acgaccaggg acgcttgga cataatcgcc caatacatac catcgagcga 4860  
 cctctgcgct gctactctag tctgacgaag atggcatgca gtgttcatgc cgtttctctg 4920  
 gggaaacca gcatctcact ttggaacgga aatgatgaa gtctacggta actgctaccc 4980  
 aaccgctcta taatatacta acattctgat ctctacgaca gtcgctttga cgagattcag 5040  
 aaggaccctc aggtatgccc gtcctgaagt acggaggcta acgcacaccc tccatatgcc 5100  
 tccagcgctt tcggagattt atggcgccc acgtcctgaa tggctgcgag agatcttoga 5160  
 gtacctgcca tgtctgcagt ctctgatagt gtctgaattg ccgttcttcg accacagtgc 5220  
 catgatggct ttgcggggtg ctgtgtcggg gggagtatca tcgcgaacat acaatacacg 5280  
 cctgctcata gcggagcgcg aaccgaacac gacgtctttg ggcatacgcg agacattgtt 5340  
 acgctttccg gagctgatat atctcgattt atcgtaaacg acatctgcga aagacctgtc 5400

cagtcctatt gtcgttatcc cgactagtgc ggctgcatgt gctcaagctg cgaggtatcg 5460  
tattgatgca tattgatgca gcgtttttgg caaatgctat cggccatagg gttcggttcc 5520  
ttgacctgcg ggagaataag cttaccgaca cggctcttca gccgctactt catgcttggt 5580  
ttggggccgc aaaccatgat catctgcgtc ctcaatcaac ctttctccga tcgcccgggt 5640  
tggacgagaa attccgaaag gcgttgacaa gtcctttgac aggtcgctct tgggttgaag 5700  
atctaccaa tgtgggaatc acacatcttt atctcgcgga caaccagttt agtgtcaacg 5760  
ggatagcgag catcttagcg acatcccaac tacatgtttt agatgtagga actcttgata 5820  
tggcgaagcg cagcatcaaa gttcagtcga atggaagacg cgaagcatac gcgggttctg 5880  
agaagctgat acccattctg ggcacggctg caaaggagaa tttaacttac ctgagggcgc 5940  
atcatactat ttgcacctct accgctctgc aggaaaggct gatgtcaggg gttgatttcc 6000  
ttccagagct ttcgggcaag catgcgatgg cgcgtgcaag tgagctggat actctcgcca 6060  
cccagataca tgagctcccc gcagacaaca ctccagtgtt tgaagttgca ggaagtaccc 6120  
caagaccca gtcactgac agtgtgtgca gtaataaaga cggccaaagt ggcacgcgat 6180  
atgaacatga acgtccaatg gcccgaaggc gaggtctctg tttcgcgcca gaggtgttgc 6240  
ctagccctaa cgaagccatt aggaccactt tggccggctt ttcggacaca cacgctacaa 6300  
tatcaagtgc acccattcca ttgtgtagtt ctctagtct catggaaggc cgcgtgcac 6360  
gaaaaatcca agaactgctt gcaaagcgac ctaactatca gcctcgccga caaggaatcg 6420  
gaagctactt tgattttctc cacccttccc atattctca ccttgagggt ttggtgctca 6480  
cagatgttcc gtcccacgtt tctgccacct caccaatcct ggagtcgttg attcgctttg 6540  
tgactgcttg ctccaacgaa gcgctactcg caaccctaca agcaggatca gattactccc 6600  
taccaccggg ccaagaccgg gcgagggtg agcaggaacg agcaaagtcc ctgctttggc 6660  
ttgcgccagc tagtcctgga aataacacca gtaaccact cctccaacc tattaatcg 6720  
accgcttgga aatccgtcag cgcccagatt ggacaccaa ggtcagtgac gggtgactgg 6780  
gatctogaac gcctttggtc cgcagcatcg gatgacttta gtttttcaa cgaaaccgaa 6840  
tgtgggattc cagctgatgg tacaacatgc acagcggaac ctcataatgc ttcgtctgca 6900  
tctgtaccgt cagtaccaat cgtggatctc gtatctgaac tggccgcttt ccggcggaga 6960  
aagaaactgg aatatgagca ggttgtagcg tccacttttc agagaagaag catggatgac 7020

accctattgc ctcagttctca gtctcagtac acaatgggct cggctgctgg ggcgtccccg 7080  
 tcttcaagcg tccgagcgtt gaggccgctc cctggacctt attcgttcat cgcccaccat 7140  
 gttgaagggc actggaaagg ggaagtcaag attgtccgaa atgcgacccc taaggggcca 7200  
 agcgggtggg tggacctgta tgggaactat tttgagacag ggtacttgta tccctgagag 7260  
 atatcgacat caagtgcgat aacggcatga tgctggggca tgaatgcttt ataccgcag 7320  
 atagcatatt atttgactc ttcttcgaac acgttcgggt actagatttc tctcttttga 7380  
 gtcgtaattc tcccgtactt taccctactc cgtcccgcta taatgggaaa agatgtgggt 7440  
 cataatctta tatttatttt tggatcgtc ttatgaagtc tggtgcttca agaccggtaa 7500  
 tgtctttttt caaccccgag gtgaaacccg ttcattccat tggcaccgtg taagaagagt 7560  
 ctgttcacaa aaaaaaggga aaagtaacat tcatgccgtt ttaactaatt ccattttccc 7620  
 gtgacaccct tacatagcct tggcggcctg gggagggttc agcttcttgc cgtccttggt 7680  
 gtacctaatg cgagggggag gggcacggtt gcgacgacct tcccgggagc ggacactatt 7740  
 aaaaatcgtt agaaccagag ttatgccgga gtcgatttca aagcatcagg gtagaaggcg 7800  
 taccgaacga tcttgccgtg gatagcgcag gagacgcagt actgcagctt gaggtacatc 7860  
 ttggggacgg cgtagtcggc gaagacggag gcgtcggaga tatcacctag aaagcggaaa 7920  
 gttcagggtta gtgtctgttg cgctctgaat atccagtttt ccgaccctg cgtgcgatgt 7980  
 tttcgatatt ccgtgccatt ctcgagggtt ccaatcacgt agtccagctc tttcgggtaca 8040  
 acagcgcaca acggatcgaa ggttcattcg gaggcggggt caacgtacgg atggcagcag 8100  
 actcgaccat gttgcggatg gtgaatctct tgatggcctt gtccttgga acgcagcgag 8160  
 cgcagttgga gcagcgcacg ggcttaacgt ggccgcggcc gttcttggtg cggccgctat 8220  
 aaaactgtta gtttctgaca ttgaatccat actatttccg aacgctttcg agcttctatt 8280  
 ctcttattcc cgctcgtcat gagatgatat tgagcatctt tcaagggtgag agtatagcag 8340  
 tcgtccattg gcgccacatt cgagagttcg ggaagtcgat atagagtcca aaatcgtgct 8400  
 agacagggaa gggttgcggt cttacttggt cgccctcttc ttgaccattt tgacggattt 8460  
 ctctggattt cggttagaga atgtaaagtc aaaagttagg ggttgaagga aaggtcgacg 8520  
 cgtacttggg tgtcgggggt ggttgctggt agtgctccag tctccggacg ctcactcttt 8580  
 cgggatggag atatgtcagt gtgtgttgaa agccctatcc ccttaagcga gttccgggtca 8640

cgggatttgc agcctgaggc aaataaaagt tttttaagca tatgcctcag gaacctaaga 8700  
 tccaagcggg cggatgcacg tgccgattgg cggctctcca aaatggacta gcggccgccc 8760  
 agtgccagcg gattgtttcg gtcagccaat acggggattt cagtttactt catgttgggc 8820  
 cagagtcagg ccacaccgtc aataaacgat ttacagtgat agtgtcacct ggcttgatcc 8880  
 agtctcatta atgaagggat tacatatggt gtacatataa gtcggggtcg tgtgacagaa 8940  
 gctcttcaag gaagagtcct ctattgaaaa tcgaagctag ttttaagcggc gacaacaaat 9000  
 agtcgatctg ggctaaagcc tccactagaa atccccccct gtcttgcggt ctgcccgtat 9060  
 ctttctcggt ggctcgcac gtctttcttg tctttcatcc cgcctgtttt cgtctttttt 9120  
 aaagtttatc gagtcaatca gtcttcgaaa acatttactt catctctcat tcatttttcc 9180  
 tgatccctga attccgggtc gccgtttcca ggtcctagat atgtcttcaa ctcccacctt 9240  
 tcggggcact actagccaca gaaccgtcgg acgcggcaga ttgcctgatt ttgagggagg 9300  
 cagctcagct tctcacattc cagccctcg acccgagtct tcgtcaacga ttactttctca 9360  
 caaccctcac acgccatcaa gtgacatcgg cagttccaca atgagtgcgg caagcagtcg 9420  
 gcaaaggcag aaccagtcga agcgcgatga ggtacgagaa attcttccac aagccttata 9480  
 taggcgataa tacagttgtg aacatgtggt tctgattcat tttgtgcatt aggctattcg 9540  
 acggaagctg gagggcgacc tcaacaagaa gagaagcaac ccagcaagag cgaatcgac 9600  
 tcgcaaagct ccccaggca ctgtcct 9627

<210> 4971  
 <211> 3104  
 <212> DNA  
 <213> Aspergillus nidulans  
 <223> unsure at all n locations  
 <400> 4971

ctgcaaagga ggggtggggat taaaaaattt ccataccgat ttgagttatt gtttttttct 60  
 acagactggt attcttggtg cagcttaggc agcggtcata gctgcagaga tacgttcggg 120  
 ttacccttgc actcatattg aatcattggt ttgcattgaa ggcggagtgc ttcacacgca 180  
 gtttgtcact caactcggga gagtggtagt gagcaagccg gctaaaaatt ctggatgggt 240  
 ggtgcagtgt gaatttggcg aaacaattgc tcccggtaaa cttggacatt catgatcgct 300  
 aaagcccact catgctgtcg agcgaaacgc cgaattgcac ctggccgcaa ctcaatgatc 360

ctactggaac gccatgaagc tgccàgttgc aaacacttga tctggatatt ccggtgacct 420  
tccgtcttag ggcaaacttg agagcgccat gacactaaat tgcccgttat ttgccacctc 480  
aaaaccaca cactccacgt acttactata gtttggctga atcaggaagc taggatatga 540  
atcaaggcgc tgtttgcgtt atgctggctt gtctatcaaa gtggaagccg tgtgcttttag 600  
ccgcttcgga gtatgcatac tttttacaag aaatgcttag agaaatggga caaggtaaaa 660  
agaaccatt tatcattgac ctggtgggtt caataagcgt caggaaagta atatatatgt 720  
ttacaactca tatattcttt gatatactct attcacaccg gaggcttagc tatagtaata 780  
ctaataaaga cgttctgcat acatgcaaca ccggtgtaac tgtcatgttt taatggtcga 840  
cagattttgc acttctgagg ggctcctaga gcaactggccc atatgccggt ggcctatggc 900  
aagttcaggg tccagcgcat gttgccaaagt aagccatcgt gttatctccg gttgagcagt 960  
catcgcgagc aagagtcacg atcttgccat ctttactgg ctcgatgatg tttaaaagcc 1020  
caattttctg ggtctccagc ctgcggaatc gttcaagat agagtcgtat gtggacaatt 1080  
tgtttagcac ctgagtcac aggtgggctc tccacgtgct tcgagttacg caagtcaaaa 1140  
gccactggta actcagtcca agctactcat gaagctaaac cgaatgaaag ggtatagcat 1200  
gctcagttaa gtgctcggcc ccttcaatga cattctgtgt ataaattaca ccttcttaga 1260  
aaagcttctg ctacaaggct gtcaacgaat accagttgat ccgtatttgt ctagccaact 1320  
tggacgaata gttcacgaga acagtactcg ataaggattt caaagtgta gcgcccccg 1380  
ttccccaaaa ggcgctcggg agcacagcca tatactgctc tcgatcgtct attgattcgt 1440  
cagcttgtgc taggaatctt atttggttta gggatgtatg gagagattgg agatcactct 1500  
ggggttgtga tgtcctgccg ctctgcatcg ccaactgtaat acagaacagt cggttattct 1560  
gctggattta ttgatacta agttacttcg cttctgatta gatatgcaca accttagaaa 1620  
cttttcaggt ttttcgattg agtccggaac catttcctcg attttggcaa ttctaacata 1680  
cagtcttagt taacaagcaa gtcgctcagg attggctgaa atgagcatgc ttagctcggg 1740  
gcagacctaa aggtattgat gacgagaagt gtgtccatct tctacgtgcg gtggtgaaag 1800  
agaagaattt aaagaatata ttatacagg cacattgtat aatggtagct cgctcgtgtc 1860  
tcattcaaga acaaaccata ccgaaacgcg actaatcttc caagacaatt atgttaaagg 1920  
acgctaaaga tcctataaca gtcttgagcc ttagcaaaac atttttttaa cgttcagcaa 1980

atcttactgc ttcaacttta tctactgat aatgagcaat tctaacaatg gcagactcca 2040  
 ctcccgctctc tgattggagc tagagaacga cggagtattc acttacctaa acaggctagc 2100  
 tctcgcttct acccgcggtc aacactaata aaggctagtt gtatacctag tttctgcgca 2160  
 cgcaatcata aacaacttcc acgattataa tcttcccag cttgagcaaa acgaagataa 2220  
 ttgtatagat cgctgagtca tacatcacgc gcccttatag ctcagtcgta gagcgctcca 2280  
 ctcgtaacta atgaattgga gaggtccgca gttcaatctt gcgtgnnggc atagcaatcc 2340  
 cttgcttttt tggtgttttt gcttcttagg acagctcgaa taccattgga agctaagatt 2400  
 ctggtttttg ctggtatcac tctcgattaa gggtcgcttt tttcgacggc agctctacca 2460  
 tggccggcac tttctattgt agtctttagc tataatgggt aatatttcct gcaccatttc 2520  
 ctacttcagg acagtaaagg agatcatgag ttaggggtgct ttgggtgggg gagttcgatg 2580  
 ggatccagct gccgcgaagt cctgcatatg cgttcgtata attcataatt ccaccatggt 2640  
 cccaatctgt tgtggaggag ttgattgatt ctacagcgca ggctccttca cactctgaaa 2700  
 tacggcattg tagtgcattg gtggtatgca tgagtgcgtg tccctcaatg agctttcgat 2760  
 ctttatatac atggccaggt ttagatcagt actccgattc aaacagaatt acattccatc 2820  
 tttgaagata ctaaagccta ggtatatatc cctgtcgaac ttacatgagt aattaagcct 2880  
 caaacgagct taccagttt gataacagag gcgaaggggc attaccacgt atagaggaag 2940  
 aaagtggata tgctacgcgc tcccgcagtc ttctccaatt ccatcgcgtc ccgtcgtgtc 3000  
 aatgaaatca ccgcctgctt tctttctctc caatgacaac tacgcacgat ttttgagctc 3060  
 attgccaaag aaatctaatt tgacaagact gaagcttcaa cact 3104

<210> 4972  
 <211> 646  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4972

aagaaaagaa ggggccggac ccacccccag gccagaaga acggaacgac acgaacaccg 60  
 cagaggaaaa aggcaaaagc ggccgcaggg acaagcgacg gaatagacag cgacggggga 120  
 cccgggcca acccgcaggc acacgcccc aagagacccg agagcaaaca aacacacagc 180  
 gaacgcaagg ccacggaacg ccacagacc acccaacgaa acacgagagc ccagctcgca 240

gaccgaaaaa	cgaaaggggc	aagcgccgag	gggcagaccg	acacaacgcc	aagaacaaaa	300
acgccaatac	gcgcaaccaa	cgcgcaagcc	ccagcgccac	cgacgagaaa	agcagcaccc	360
cagagcccac	aaacaaaagg	ggaataaggg	cccgcagaca	gaacaaagac	gacaggcgcg	420
aggaccacac	gcagcccaag	caaacgcagg	gcccggaaaa	cagcaacctg	agcacagacc	480
caaaaagacg	cgagccccag	ccgaacaagc	aagccgaaac	taacaaccag	aaaaccaggc	540
agccaaaaag	gaaagcgaca	aacggcggac	aaacaaagac	aacagcgaag	acgcaacgag	600
ccccaaaaag	gaagaaaaaa	aacccaaaaac	gacccacgc	aaggac		646

<210> 4973  
 <211> 7322  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4973

tcgctggtaa	catgctagta	acgccagtta	cgctccatca	aacggcttat	gatgcgactt	60
tttgttcatt	ggctgagatg	ataagtagcg	ggtctggttc	agggcgccca	acgccttcca	120
tggattcggt	tgcgcttcag	gttatttggt	ggtaaaccac	cccactgcga	tactccgtat	180
atcctgttgt	agcggcttga	aaagccgacg	cagatattct	tagaggactc	aagacgcctc	240
cacgggtatc	acatttcggc	gcggcagcgg	atctattgct	cctatattgc	ggtaggagga	300
gataacgtcc	ctaaaacctc	atgaacgagg	acaccaagct	gcagccacca	acgaagctta	360
agttttgagc	acctacctca	atcttaattg	accgtggccc	atgttgacct	gataacgggc	420
gtaaaacaag	tagaatactg	ctttaaacac	taccagtcgc	gttcagcata	aaattacgcg	480
gaatctgcaa	tcttgtattg	gcagtacgcc	aagatacagt	tcaagacaca	taagccacag	540
aaagcagctg	gtgtcgcgta	ccatgacggc	aaattcgcag	attcagcgcc	caaaatagtg	600
acagaccccc	tccccggcag	gccagccagt	ctgattttcc	tggttgacaa	tcagttccct	660
ttccactctc	gctgaccgtc	caactaactt	gtctgtccc	tcccttcgtc	cttctcttag	720
tttcttttct	ttcttttcga	ggcttcactt	tttcttcagt	tgcttttgag	tcccagtcgg	780
ctctttttca	tcgtttgtac	tcggaagctt	atcgaccacg	gaccgtactc	cccttccttc	840
cttgtgcctg	ttgttcgggg	aaagaagagg	aggcgaggct	gcggtgcccc	ttcctgttgg	900
gtcaaaagag	tttctctctg	ttatcttcca	tcatcattcg	tttgacaatt	tttcagaatc	960

gatcgaagaac ctcttcgagt agaagaggac aaaagaatcc ttcacgaatc gtcgcttttc 1020  
gattgggctt gataatacta caagggtgac ggacagggtcc ggtgccttcg agcgatcgcc 1080  
aactccgact gttttcacga agcgcctagt gcatgatctt tagattcgct cgtctataac 1140  
cgctgatttg ttctgtcgat gctataatta ctgaagcttg atcggactaa tatttaatgg 1200  
gcctttgttt ctgtgagttt ggttgctctt ttacttgcat tttttgggtt cagaactaac 1260  
agcaacaaga gaacctcggg gattgtcgct tgtcataatg tcgggctacc cacaagggtc 1320  
gggctatcag caccgcaact acgatgatgg ctatgaccat cagggtcatg gcgatgctta 1380  
ctatcaagat gaccaccatg ctcaagctgg ttattatgat aaccaagact atggggatgg 1440  
ctactacgat agagggtaac ttcccttat tctaaagaca tgcctcgcat ttgtgctgat 1500  
ttttttttta gtggctacgg ggatcatggc taccagcatg atggctacta cgatgcgggc 1560  
caccacgatg actactacgg cgatcagtat tacgccagg gaggtcaagg cagaggacga 1620  
catggctcgtg actccgagga agagtcggag accttagtg atttcactat gaggtctgaa 1680  
acagcccgtg ctgccgacat ggactactat gggcgcgggg acgaacggta caacagttac 1740  
actgatagcc agtacggaca cggaggctac ggttaccgcc ccccttcttc gcagggtgctg 1800  
tacggtggta accggtcttc tggagcgtcg acaccagtgt atggaatgga ttacggcaat 1860  
ggcttgctg caggccagcg atcccagag ccataccctg cctgggcttc cgatggccaa 1920  
gttccggttt caaaggagga gatcgaagac attttcattg accttgtaa caaatcgggt 1980  
tttcagcggg acagcatgcg caacatgtac gaccatctaa tgaccagtt ggactcccg 2040  
gcctcccga tgactcctaa ccaggcgtc ctctcccttc atgcggacta cattgggtgg 2100  
gacaatgcca actaccgccg ttggtacttc gccgccatt tagatctcga cgatgcgggt 2160  
ggttttgcca acatgaaact gggtaaagca gaccgcaaaa caagaaaagc tcgtaaggct 2220  
gcgaagaaga aggcacaaga aaatccagag gacgtcgaag gaacgctcga ggcgctggaa 2280  
ggcgacaata gcctagaggc cgctgaatac aggtggaaga caggatgaa ccgtatgtct 2340  
cagcatgaaa ggggtgcgca attggcactg tacctactct gttggggcga ggccaaccaa 2400  
gtccggtttt tgcccaggc tctttgcttt atcttcaa atgtgccgacga cttttacaac 2460  
tcgcccagat gccagaaccg agtggaaact gttgaagagt tcacatatct caatgagatc 2520  
atcactctc tgtatcagta ttgccgtgac cagggttatg agattttgga tggcaagtat 2580

gtccgccgtg agcgtgatca taaccagatc attggatatg atgacatgaa tcagctcttc 2640  
 tggtagccag agggaattga gcgtagctg ctggaggaca agacccgcct cgttgacatt 2700  
 cccactgcag aaaggtggac caagctcaag gaggtgaact ggaagaaggt cttcttcaag 2760  
 acttacaagg agacacgttc ctggttccat ctggttacaa acttcaaccg tatctgggtc 2820  
 atccatctgg gtgctttctg gtttttcacc gcgtataacg cccctaccat ttacactaag 2880  
 aactacagac agcagctcaa caacaaacca ccaggagctt actactgggtc tgctgttgggt 2940  
 tttggtggag ctttgggtctc attcatccag atcatggcga ctatctttga atggatgtat 3000  
 gttcctcgac gttggggcggg tgctcagcat cttaccaaac gcctgctctt cttgctcttg 3060  
 gttttcgtca tcaacctggc ccctgggtgtt gttgtcttcg gattttcatc ggtgcttctt 3120  
 ggcaagggtc cgcttgctgt tggtatcgtc catttcttca tcgccctcgc cacatttttc 3180  
 ttcttctcca tcatgccact tgggtggctta tttggcagtt acctgaagaa acacggccgc 3240  
 cagtacgttg ccagtcagac gttcactgcc agttttccga ggctgaaagg aaatgatatg 3300  
 tggatgtcat atggactttg ggtctgtgtt tttggtgcga aattggccga gtcatacttc 3360  
 ttcttgacct tgtccatcaa agatcccatt cggtagttat cgccatacca cgttcaccaa 3420  
 tgcgcggtg tcaagtacat tggagacaag atctgctact accagcccca gattcttctt 3480  
 ggactaatgt tctttatgga tctgacgtc ttcttctcgc acagttatct ctggtacatt 3540  
 atttgcaaca ccattttctc agtcgctaga tcgttctacc ttggtgtctc tatttgggtc 3600  
 ccctggcgaa acatcttttc gcgtctcccg aaacgtatct actcaaaagt ccttgcgacc 3660  
 acggatatgg agatcaagta caagccaaag gttttgatct cacaagtttg gaacgcaata 3720  
 attatctcca tgtacagga gcaccttctc gccatcgacc acgtccagaa gctactctat 3780  
 catcaagtgc cgtccgagca agaaggcaag cgaacccttc gagcaccac cttcttcgtt 3840  
 tcccaggaag accagtcatt caagactgaa tttttccac gtggtagcga agcagagcgc 3900  
 cgtatttctg tctttgccca gtcgtgtcc accccgatgc ctgagccgct gcctgttgac 3960  
 aacatgcta ctttcaccgt tttgattcct cattacagcg aaaagatcct tctctctttg 4020  
 cgtgagatca ttgcgagga tgagccttac tcccgtgtga ctctcctgga gtacttgaag 4080  
 cagcttcatc cccatgagtg ggactgtttc gttaaggaca ctaagattct ggcgacgag 4140  
 acctctcagt tcaatggaga ctacgaaaag aacgagaagg acgcgccaa gagcaagatt 4200

gatgacttgc cattctactg tatcggtttc aagtctgctg ctcccagagta cacgcttcgc 4260  
accgcgtattt ggtcctcgct gcgttcgcaa actctttaca gaactgtatc cgggatgatg 4320  
aactatagca gagctatcaa gctcctctac cgtgtggaga acccggaagt cgtccagatg 4380  
ttcggtggtg attctgagaa gctggaacat gagctcgaga ggatggcccg tcgcaagttc 4440  
aagatctgtg tttcaatgca gcggtatgcc aaattcacia aagaagaacg tgagaacaca 4500  
gagttcctcc tccgagccta ccccgacctg cagattgcct atctcgatga ggaacctcca 4560  
gccaacgagg gtgaagagcc gcgtctctac tctgctttga ttgatggaca ctgtgagctg 4620  
ctcgagaatg gcatgcggaa gcccaagttc aggatccagc tctccgaaa cccgatcctt 4680  
ggtgacggca agtctgacaa ccaaaaccac tcgatcattt tctaccgcg tgaatacatt 4740  
caggtcattg atgccaacca agacaactat ctggaagagt gcttgaaaat ccgaagcgtt 4800  
cttgctgagt ttgaggaatt gaccaccgac aatgtctcgc cttacactcc tggcgttgcc 4860  
tcttctctg aagctcctgt tgctatcctt ggtgcccggt aatacatttt ctgagagaac 4920  
attggtgtac ttggtgacgt tgccgccggt aaagaacaga catttggtac cctgtttgc 4980  
cgtactcttg ctgagattgg cggaaagctc cattatggtc accctgattt cctgaatggt 5040  
atcttcatga ctaccagagg tggatatctc aaggctcaaa aaggctcaca ccttaacgag 5100  
gatatctacg ctggtatgaa cgccatggtt cgtggtggcc gcatcaagca ctgcgagtac 5160  
ttccagtgtg gtaagggctg tgatcttggg ttccggtcca ttcttaattt caccactaag 5220  
attggcactg gtatgggtga gcaaagtcta tcaagagagt actactactt gggactcaa 5280  
ctgccactcg accgattcct gtccttttac tatgctcacc ctggattcca catcaacaac 5340  
atgtttatta tgttgtctgt gcaaagtctc atgattgttc tgatcaacct gggggccctg 5400  
aagcacgaaa ccatcaactg caactacaac tccgacctgc ccattaccga tccacttatg 5460  
ccaacgttct gcgcgcctct cactcctatc atcaactggg tcaaccgctg tgttatttcg 5520  
atcttcatcg ttttcttcat ttcgtttgtt cctttggctg ttcaagaatt gactgaaaga 5580  
ggactctggc gtatggcaac gcgtctggcc aaacatttcg gatctttctc cttcatgttc 5640  
gaggtgtttg tttgtcaaat ctattccaac gctgtgcacc aaaacttgct tttcggtgga 5700  
gcgcgctaca tcgctaccgg tcgtgggttc gcaactgctc gtatccatt cggcgttctg 5760  
tactctcggt ttgcgggacc ttcaatttac accggtttcc gtctgctgat catgctgctc 5820

ttctcaacct caactacctg gactgectct ctcatttggg tctgggtctc tcttctcgcc 5880  
 ctttgcattc cccattcct tttcaacct caccagtttg cctggaacga cttcttcac 5940  
 gattaccgtg actacatccg atggctttcg cgcggtaact ctcgctcaca cgcacctca 6000  
 tggattggct tctgccgttt gtcgcgtact cggatcactg gttacaagcg caagcttctc 6060  
 ggtgtgccgt cggagaaagg atcaggtgac gttcccagag ctcgtattac caacattttc 6120  
 ttcagcgaaa ttgtcgctcc tctaggcctt cgtgctggta cctcgcttc cttcccttac 6180  
 atcaattttg gactgggtgtg agcgtgatg tggacggggg caatgacccc tcacgatgcc 6240  
 attttgcgta ttgccattgt agcatttggg cctattggta tcaatgccgg tgttgctgct 6300  
 gttttctttg gtatggcatg ctgcatgggt cccatcctga gcatgtgctg caagaagttc 6360  
 ggtgctgtgt tggcggctat tgcccacgcg attgctgtga tcactcttgc tgtcatcttt 6420  
 gaagtcatgt tcttctcga aactgggtct tggccccggg gcgtcatggg catgatcgcc 6480  
 atggctgcca ttcaacgttt cgtctacaaa cttattatcg cgctcgctct taccgagag 6540  
 ttcaagcatg accagtcgaa catcgcatgg tggactggaa aatggtacaa catgggttgg 6600  
 cactctctct ctcaaccggg ccgagagttc ctctgcaaga tcacggagtt gggctatttc 6660  
 tcagcagact tcgtcattgg tcactctcta ttgttcatta tgctgcccgc tctttgtgtt 6720  
 cttacattg acaagtttca ctcagtcatt ctcttttggc tccgccaag gtaagacccc 6780  
 tcatttactc ggttgtggat tcctaactct taacactcaa atctagtcgg caaatcgcc 6840  
 ctccaatcta ctcgcttaag cagtccaagc ttcgtaagcg acgtgtggtc cgtttcgcta 6900  
 ttctgtattt cgccatgctt atcctgttcc tcgttctcct tattgcaccc ctcattgcca 6960  
 gaaatcagga tctgaacctg aaaatgagtg gcaccttct tgagctcatg cagcctctcg 7020  
 acagcaacaa caacgacact atgaccagct ataccggctc ggggtgtccc aagggcatgg 7080  
 agcctattgc gtgcccgtca tcgtacctta cgaacttaaa caactaaagg ctgtcttggt 7140  
 tcgtcaaact acattctgct acaatattct gatatggaac atgggaacaa gatgtataaa 7200  
 gtatccggcg cgttgatgtt gctgttgagc ccgtcaatta tgtgtcttat gtgcatatta 7260  
 ttctctcac ggaatctcta ctagtacggg tcctgtgaga ttcaatggat gcaatatcta 7320  
 tc 7322

<210> 4974  
 <211> 4102  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4974

```

cttgttgaca atgcagtggg aatttgacaa ctatggttct gtcgtaacgg agaatgggat 60
aatgtatcag aacagcttag aagggtggcg tgatataatt cgaagttgag tgtgctatgt 120
gtagtggctg gctgagacca gtatcagggc gagttctaga aggaggaagg ttgggtttct 180
gaacgccttc ttcacatatg aagttgaatt gtatcgccac gattgccaac tgctccatct 240
ctggcatgtc ctctgtcatt ccaggtatct acagcggcga gtatggcagc atcttagata 300
tgggctcacc ttctgtgtgt tccgtaggac gaatcaagtc tattggtttc tggtgagcag 360
tttgggtcgg aagtatactt tcttcgaaac cactcgctcc tttaaaggaa gcaaaggagc 420
tcaacggttg ccatttagct gttcatctcg ctgaagatgt taacaaggaa ggcagaagtg 480
gcgtcgaatg cccgcaatgg agcctttcga gacttggcct ctggatcgag gggctctaata 540
aggggatgct gtttgcaggt taggaatagt aagaagtcag cattgtcttt gcgccactga 600
taggtcgtcc agatgacggg aaatatggga taggtaatat acggccagat catgttcggc 660
gcatggctct aactcgtga ctgtttcctg aagaagcttc tgggtcggtg tgtgatgcct 720
cataagacaa tattgacgac actactccga ctctggtggc tgacggaccg ttgtctgggt 780
tctcccattg cctccaatgt ctggtacggc gtgggaaagg tatggaagtt cacctaattg 840
aaagacagcc gccagtatga gcgaaggagg ctgtttctgg gacgcggttc taggcctatc 900
tctgctagca tacagctgtc tcagccgctt ctaggtcaag ccatggagtg cagctcttac 960
cactctcgga aactcacga ctcatctcaa gataagagaa aggggtggcag ggagaccata 1020
tcaacgtcac gggccacggc caaaagtccc ggcaccccaa tggggaaggc atgcaacgtg 1080
acctcgaccc cctctcttcc atcactttcc tcgagcttga ttgtttcttc cttgtctatt 1140
ccatcaatcg atttatcttc cgtcggatta ttatcgaaat ttcgagaaaa tctattgatg 1200
ttgccctgat ttagtatcca tatgcttccg aaccgcaatg gcccgcccca agaaaggccc 1260
tatcgctcct cgaactgtgt ccaacagggt cagtaagcct cgtaaatac caaagaacat 1320
agctacagcc ataagtacgt acctcgctca ttgcagtccc accactgaca ggtatagaac 1380
cctcaagaga cgccgtcttt gatccatcag atgtcgcgtc ggacgccaag gtgaggagta 1440

```

tcgaatccag tcctagcctg gcagaggttg atggagtcct tcctgcttgg gcagatgttc 1500  
 gtgagcctga ggtcagaatg cgtacttcgt taacattgaa ttccaggacc gcgctgctct 1560  
 cgcaagtgcc atcccgtggt ttacctgcta cgagggcgga atgtaccata gcaagatggt 1620  
 ctgctacggc tttttgcttg atggtgattc tggtaaccgc tgtcacatag atgacgaggt 1680  
 ggtcatcacg aggatgtgag tgccctgtac taccgaacg gctcgacact tatatactct 1740  
 tcagaggggg aggctgcagc aaagacagag acggaaatcg tatgctcaaa aaggatatgg 1800  
 atgagcagga tgttctgtta agagccagcc aaacggtaaa gaaaagcaag atccctgtcg 1860  
 gaatgattat aggcaagtcc attgaagcgt ccattggctg atcactaacg tatatcaggg 1920  
 tccaaaaaca cgtcgctggg aagaaagctg ccacatcggg ataatgtcat ggcgtacttt 1980  
 cgagttatct gcatatgggc cgagaagata aacggcaaga cgggctacaa ggtgcgcttt 2040  
 gagaagctgg acctttcaga gaagagctgg tgggctgaga agggaacagc cctgccagac 2100  
 cctgcttcgc ggcgtttcac gcaggccgag tctcggcagt gtgctacttg ccttacaccc 2160  
 agcacacatg tgtacaaaga gggatggatg tgtcttaaca gaacgtgcca ggagttctgg 2220  
 atgctcgctg gcttggagcc tccgagaaac ctaacctttg atgacaggtt tcttgaagcc 2280  
 cgggctcagc ctgggcccga tatgcagctt cacggtgact tgattccaga cttgctctca 2340  
 acaattgatg agcacgatcc gcttggcagc tctcgcctc tttcctggaa atccgggggc 2400  
 gtgtgtccgc tctgtcaaaa gtgtatacct cgccgtttct ggaacggttg gaaatgctcg 2460  
 gacacccttt caggggaaggc acaaggcgaa tgcccgtttg aaaaatggct gaaaatccct 2520  
 acggttccct tatcggcagc gattggtggt atcaacctgt gtcgtaacaa gcgtaccgta 2580  
 atcaaaaatc gccagtctag cttcctgccc cagattgatg ataggtcttt cgctccatac 2640  
 aagctcatta catacggtct tggagcttcc gggatatca tgcatttcgt ttcaaacgag 2700  
 gttatcaata gccgcccag aggtccgaat gagctctttg aggagttgca gaaggccaac 2760  
 ctgggactta gacgatatcc cctagatcag gcccaagggt agtacatttc atgatccctg 2820  
 gaaaagctaa ctaatgagca tagtcgctgg taccctgacc gtcatttcg ttaccaactt 2880  
 tgtaggggta cctgcacggc ttgatgtacc agactgatga gtgtaggggtg caccgtacaa 2940  
 gtatgtcgtg tctgttgact cgcgagggtt tagtgaagcc tgcgatccgg tacttcgagc 3000  
 gttgggcccgt ttgacatggg ccactaagaa cgctgtcagg agccagggtg ggaataccta 3060

cgatcccaat gagctgctcc tgctaggata ctttgaggaa cagaagattg gtgtatgtct 3120  
 gccctgagga gcggaagta tccaagtaac atcatatagt atcatgacga tggagaatcc 3180  
 tcactaggac cgacgattgc taccctttct cttggatcac ctgcgaccat ggccgtgcgc 3240  
 atgaaatata agtactatca cggttttacc aaagcaggca gggagaaaaa cacccttctc 3300  
 acggatgatc cgatcttgcc ggaatgagag aactatgtca accggcagaa actcaaagaa 3360  
 cggctactca acgggtctat cactgacgac gaatacaaga aggcttggtt tgactccttc 3420  
 gccgagaaca agagccgaaa tctaccaccg gacataatca aaataaagct gaaccatggt 3480  
 gacatggtgg tgatgcatgg agagggggtc agaagtacta cgaagtaggt accccgttgc 3540  
 ggacatcttg gcccttacat attaactact gacctggtct agcatggtgt aaaacttgag 3600  
 aagcgcggca agttgcggtt cgccctgaca gcgcggcatg tgaagaaaga ggagattcca 3660  
 gagcaagact ggccaaaagg ggactttacg ttgacagacg atcaaataata tgatgggcag 3720  
 tgagatactg gcttaattgt ggattatata acttctgatt tctcgattga tattccgcaa 3780  
 ggcatatttg agcactttcc caccttgctt tatttcggtt gctagttact ttgtgcaatt 3840  
 taaactatcc attcactcgt tgacggacca agccaggaaac aaagtgtagc atggtaacca 3900  
 taatagagac aaaacgccaa ggactagaaa tattgagact attcccagag aagcgcagtt 3960  
 attgaggatc tgggtgaaac catctatagg tcgtagaccc ttggaaaagc gattagcctc 4020  
 ttccatgtcc atacagccgc cacgtatcag taaacaataa gcatatgaga tatctatttg 4080  
 cgttgactat ctggcagtct aa 4102

<210> 4975  
 <211> 10921  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 4975

acgtggcgcc tgacgccatt ctcatgaccc aaagcggctt tcctttttca tgcttccttg 60  
 ggcagataat gtgaagagcc atctacatgc atggtttggc ggcaatgagc taggcaatgg 120  
 cattgcggat gtgttggtcg gggtcgtcaa tcccagtgga aaacttcctc tttctttccc 180  
 gcggcgaatc gaagacaccc cgacatatct caattttgga agcgagagag ggcaagtaac 240  
 atatggcgag ggcatttacg ttggttaccg atactacgaa aaagtcctcc gagatgtgct 300

ctatcccttt	gggtccgtcc	gtccactat	tatttctgtc	gaaactacag	ctaactcgct	360
tcgtccctca	ggcacggtct	gtcgtacact	tcctttgctt	attccgattt	cgctgtcgac	420
accgcgccg	ctacacttaa	tgttcgtaac	tcgggagacg	tggctggagc	agaagtcgtc	480
cagctgtata	tcgtcgccga	tgcaacaacg	tcgtccatcg	cacgtccagt	caaggagctc	540
aaaggatttg	caaagggtgac	tttgcagcca	ggtgagacgt	gcagtgtgag	cataccattt	600
gatcggttca	ctactgcatt	ttgggatcag	gaagcacacg	tgtggacgtg	cgaaaaaggg	660
cagtatagag	tcattggttg	gtcgcagcgc	caaaacattc	tgctggaagg	cgtgttgtag	720
ataaaggaga	cgacgacctg	gtcaggcctg	tgagctattg	taacgggctg	atctcgagat	780
tgtcatcgac	agcacatgtc	taggccaagg	ccatctaatt	atttgccatc	taggcgaatt	840
ggaggctctt	cgacgaactt	gctggagagc	aggttatgga	gaggcataaa	aaaccctggg	900
agagtacttt	cgcgacagtg	ctttagaatt	aggagaatcg	aaattgatga	ggttggtgtg	960
cgttacgcag	aactctcaca	aacaggaatc	tgcttctgaa	ttaagtccta	aatttagctc	1020
cagggaaacc	gcaacagtta	tttccgtccc	tgggcaaatt	ggccttcac	tccattttct	1080
tagggaatag	ctgctatagt	gctgcgcctt	ttgttttctg	agcgactaga	ctaagcagaa	1140
ttgatcgga	ttcagaatca	attctcactt	ttctctcatt	ttttttttcc	gttattaatc	1200
taagataggg	gtgcactcgg	tgccgggttg	gtacaaccgc	cagggttaga	aatcaaccgc	1260
cgcgggttcg	cgggttctag	ataattaacc	tgacactaga	cttggttaac	ccaaccacg	1320
aaaccgcgcc	aaaccgcgcc	gaccgcgcaa	gaaatgggtt	gggttagacc	ttctaattat	1380
ccattgggtt	ctggatattt	ttggctgccc	caaagcccg	cggagcaacc	cgctgggttg	1440
ccaagatata	tgaataggta	tattactgta	tttagattat	attttcttac	ttagatagtt	1500
tataatacag	tatttagata	cagtatttta	ttagctatgt	aaaccattac	ttattagagt	1560
aataatatgc	ataactgggt	tattttggat	tatttaggtt	gggttagaat	tatttgctaa	1620
acccatgggc	ggtttactgt	tcaggtaacc	caccccaaaa	accgctggg	cggatcagct	1680
aggcctgaga	accgcgccca	accgtgggtt	taacaagtct	agatagctgg	tagttccggc	1740
catgctttgc	ccggtagaaa	atgaatagtt	atagtaatgc	aagagtaacc	cttgaattga	1800
tacaaatgta	accccgga	cgagggtcat	gacggaatct	atctgaaaac	ggcggctagg	1860
tcagacgggt	cggctattgt	agtatcccc	ggaaaaaggt	tcctagatct	caaggcccca	1920

tttgaagct ctgtaaattt gctgcctgag gctccgatca ttcattgtcaa gcggaagaat	1980
gaggagtttc ctctgatcag aattcagcca atttaggcca cgtacgagcg ggtattcgct	2040
taccaggatt tctattttcta cccacacaca ctggacacac ctttcttctt cttttcaaca	2100
aacccttggt gtatagagtg catgcggcag gatatggctt gaaacaatca catcgctcca	2160
ttacaaagga aaccatatca actacattaa cgtagcatac taaagggtcaa atgctattca	2220
acaactcagt cttttatctt ctgcagccag cgggtctcacc ccttagaaca gcttacagga	2280
taaacgtcac acaaccttta tgacggcaag ccaatcagaa cattcaaata actaatttcg	2340
cttctaateg gaccctaagc atggacaaaa aaggaccgaa gcaaaaccta acccgataaa	2400
ataggcagtc tctgacggca gaagtcgctt catctcatac acgggtgtgc ccaatgaagc	2460
tggaaagacg ctcatcttga acaccgtgcc caggacaaac tctgtagtcc atatttggtc	2520
atgatcatgg ctttgccac ctgcaactct aggggtggctg tagttcaagt catgcttcat	2580
gtgtcaaggg aagaagaggg attaggatgt ctgctagaca aacgtacaca cagggatgag	2640
aactctgaat agcaggagcg aatgattctc ttctgcttgc tggcctggtc atgactggca	2700
ttaaaatcct taaaacatat cttattaatt tctgaatttc atttactgtg ccgtttacgg	2760
aactcccaga ctgacactac cctaagaagg tatagtaaga ctccacttcc gcgtgaactg	2820
tcaaggtagt gaaccacaa gtagtagtta aggtacatgg ttcctggagt tctcaaagat	2880
tgcttgctg aagctactga ttttttagtat cgtggtctag tacgcttaaa cctgtatccg	2940
gtgccgcttt tggaggcgtg ccaataatac cctccaaatc ccgacaacgc gcaacttaga	3000
acgggttact tcagtatgag tggaaatact atgcaaccct ttgtcgcaac cctgcatcga	3060
gcggacattc agggtaagtg ctgatatcat cactggccag taatgcatgc actagcagcc	3120
tttctgagca gggtaagttg agtactataa atggagtttc tgaatgcaaa agagaagcca	3180
cccgactatc aaaagtcttg cagcgcttgg taaatctctt cttttcgcac tctaaatttg	3240
tggattatth gacaccatct ccttgtgcaa ctacagaatg agcatggaga atatttggcg	3300
atattctcag ccaatagatc cggagaccgt ccggcagacg ccattccttca caacattgcc	3360
tgcccgctc aatacgcgac aagatgttgc gaacgcggca accacccgag ctctccgtga	3420
gtgggatgca gctcttcagg atggcatggc cgccagagca ttagtctcct ttagcgacct	3480
gggaaacctg ggcgcttttg cttaccccga agcggaaaccg gaaaaattgc atattttgac	3540

ttacttgact gacatgggaa tgcttcatga tggtagctaa acctcttgcc cttgtagcca 3600  
 acgtgtaggt tgtgcctgtg aaactgacga ttttttcatg tcgcatagat ggctatgaag 3660  
 ctatggacat ggatacagca aggacggaac atcgtgagct cggacttcta ttcgatccaa 3720  
 acaagccaca tcagccaagc ttttaacactc gagctccgcg tattaagaag cttgtctcgc 3780  
 aaatcctact agaggccact gctattgacc gtgcgttggc aatgtacatg tttgacatgt 3840  
 ataataaagg gtggctggct gttgctggag aagccaagga gtggcatttc aattcagtag 3900  
 aagagtatca agcatacagg agaaacgatt ttggagctac gtatgtgatt tatttgcgat 3960  
 ccacaactga cgcgaggttg agagaaagcg agctgacgat gcggttggtc tagggctttg 4020  
 tgggcaatga ccgagttcgc tgtcgggaata cggctgtcag acgccgacag gaaactaatc 4080  
 aaaaccgtta tggagcccat agaaaaggcc gttatttga ctaacgacta ctggagcttc 4140  
 gaccgagagt attatgaggc ttcagtcaat ggaagtcggc ttgttaatct ggtggaggtc 4200  
 attcgtcgtt gtgaaaatct gtccattgat gatgcaaaag cacgggctcg tgagttactc 4260  
 atcgacacag agcaaacata catccgcaac aaggaggagc tttatgcca caacccatca 4320  
 atgtcccttg agctgaagag atgggtggaa gtggtaggcg ctattgttgg cggtagcat 4380  
 tattgggcaa gcagcgcccc ccggcatcga acgtgggctc acgaagagag aaatatgacc 4440  
 aagtctgctg atgagcttat gcttgagatt ccagaagagc atgcttcgag cgaggagtcc 4500  
 accacacctg attgtttcag cgttagtagc agcagctctc aacagacaag ggaaaccgat 4560  
 ccatcggatt acgaaagttc gagcaaccag ccactagacg ttccgaaagc cgacaatggg 4620  
 ccagggtcaa agcaatttag tcaaccacag cgcggtggaa ttgagcagaa ttgcgaaaaa 4680  
 caaatggaat caccacaggt gcgccccacc gcgtatttta cggtatcatc tcctttctaa 4740  
 cctgtgtata gacagcgggg ctcacttggg ataaaccatt caatacagct cttcaggggc 4800  
 ctattgatta catttggtgg atgccttcca aaggggttcg gtcagcactg atagacgcct 4860  
 tcaactactg gctaaagggt gaggaagcaa agttagaaaa cgtgaaagaa ctcggcgggt 4920  
 tttttcacia tgcataatta attctagacg atattgaaga ttgctcccc aaacgacgag 4980  
 gtcaaccagc aacacatgtc ctgttcggcc actcgcaagc aatcaatagc gctaactaca 5040  
 tgtttattca agcagtgcga gcgacacgca gctttcacia tccagaagcc atggatatac 5100  
 tccttgaaga gttggaaaat ctctatcttg gccaaagctg ggacctgcag tggaaatata 5160

atctcacttg tccatctatc gacgactaca cgaatatgat agacaacaaa acgggtggaa 5220  
 tgtttagact tttgctaagg ctacttcaga atgaagctgg ccctggagga ggttatggat 5280  
 gcgaccaggc accgggactc tccctcctct tggaccggct aacaacccaa ttcggccgtt 5340  
 tcttccaaat ccgcgacgac tacatgaatc tccgtaacag ttcatacgcg cagcaaaaag 5400  
 ggtgctgtga ggacctagac gagggaaaat tctcttatcc aattgtttac tgcgeggcga 5460  
 aatatccgga cttcaaggta ctcatcagt gtgttttccg gcaacggccc gcttcagcta 5520  
 caatgaatgt gcagccgtta ccggcagaga taaagcaata tggtgttgag tttctaagct 5580  
 gaagagaaac tttccagcac tgtcgaaatc atctaattca tttagagcgc ttgatagtga 5640  
 agacaattgg cgagattgag gatgtgacac aggataccaa ccctgtgcta aggctgcttt 5700  
 tggaagactt agtgtggaac attgttgaat tagggagaaa tttgaaaagg caaaagtgag 5760  
 gatcaaggca gcaatctgtt tgcgatatcg ccatactttt gtgcgttttg ttttatgttc 5820  
 gtagattata atatggcatt ggccttagtt cagtctaata tatggtcgtt tattgctgct 5880  
 aactgagaaa acgtatttga gcgaagtcgc ccatgactga gaacatcagt atcaagtacg 5940  
 gtaagtccta cagtagcgat gcttgggtat ctaccttggt agtattacct tgcggggctc 6000  
 gtaacactta tttcgtactt gactcaactt caatcaagta cttatcactg acgcagctca 6060  
 acctggcctt ttctcaacca ttccggactt ctggcaaatg tatggtaaag gcgtatgaag 6120  
 tatgggaata gatgagggtt ataacctcat tatactatgg tataaacata gtatctatca 6180  
 gatagtgcag aatctctgaa aactgacatt actgaataaa agtgggatgg tattgcccac 6240  
 agcaaggggtg ccctgggttaa gatgctccag caaccttagg tagaccctg tcaaaagtac 6300  
 tgctgccagc ctgccctagg ggacttgcta gtgccagctt tccgttcaca ggagctatag 6360  
 ctatctacat tgcacctata ttacgtgta ttctgtagat tatttagaac ctttgccaga 6420  
 atatccacaa ggaccaggag agggccgggg gtccgggctg gctgttaaag atctacttcg 6480  
 tcagggcaga tcagcctgtt aaccgaaaa tagacttggt aaaccacggg ttggggcggg 6540  
 ttcttcaggc ctagctgatc cggccgcgcg ggcttttttg tgggttacct gaacagtaaa 6600  
 tcgcccattg atctagcaaa ttatttaaac caaccaatt aaccctaaat aatccaaata 6660  
 tgtaaatcac tgctttaata agcagtgatc tacataccta agtaatatcc agtattataa 6720  
 gttatcttag acgtaaatga aatctagata cagtaatata ctcaaatac ttggcaaccc 6780

agcggtttgc tccgccgggc tttgggacag ccaaaaatat ccaaaaccca atggattatc 6840  
 agaagttcta accccaattc tggcgggtcg gggcgggttg gggggtgggg gggtttagcg 6900  
 ggttgggttt aacaagtctg cccgaaaggg atacaggtgc catgtaagga caacgataga 6960  
 ggaacggaat gttaaggtaa tgttaaggta atgcaggact aaacactggg gatcctccaa 7020  
 atctcccatg atcctaatta catctgcggg gatatacgaa tgtaacctag caacaagatt 7080  
 acgacggggg atatctggaa acagcggcta aacctaattg tccgctgatg cggtagtttc 7140  
 cggaaaaggg ttcttatatt ttgatcttgt cgacaactcc attaatcgtt tgtctaagga 7200  
 tccaaataca aacaccggga cagtacccaa gatccggatt acttctacac ttcaggatct 7260  
 tgtagaatat ctagttagtt tatgtaacaa aagacatagc gctatgtaca gatattttca 7320  
 ggatatagac tatttttaat ctaggtgaaa cttatatata agccactact acaaaaagct 7380  
 cctagataat taaagtgcaa agccgttgta tattatatag cttcctaggt acttttcagt 7440  
 cacttgccca taatagttat ctctagagtc acaacaaatc gtttacatgc aagcccatcc 7500  
 agggggtagc ttatgttaat tctgaccaga gtcaattcct tcttgacagt gtcagtgcc 7560  
 agcagtttgg tcttgcccat attactcaga ttaacagtgc cacctccagg ctgactacta 7620  
 gcaagcaaga aagccttggt agtggacaag ccattttgct tagtctgcac ggagccagt 7680  
 gtaatgatta agccgtcact aatggagtag ctgctggcca gatggaggcc gttgacggca 7740  
 ttgctgacct ggttgaccac catgtaacct gtgtagtcaa aaatgtgggt tgctccgagt 7800  
 tttcttaaca tagtctaagc ttttgtgtaa tgctgctgag gcaatctcat agctccccta 7860  
 tagagctctc ggaagaacgt tatgcagaca gatgttgag tgccgggggc agcaactggc 7920  
 gagacaccta gtcggctcgg tagagcagat attctacaat ggagatgcag agagaaaggt 7980  
 aagtcaggac agaacagaac aaatcgcttc gaaagctaag ttgctataaa tctatatagc 8040  
 cgatacctcg ccaccgggt actgcagggt gggcaacggc agggtagtta cactcgttag 8100  
 gtcgttgatg ccttttgagc cagttgcca tatggctcaa gagttaatgc ctgacaggtc 8160  
 aggttgtcag gcaataacca cccattggat gaacaagact gattcaaccc aaataaccaa 8220  
 atatgaatga ttttaggcaa tactgtatac aattcagcga tacaatatgt tcagtgtagg 8280  
 tttgtaatct aaaatgaggt tacctgaaca ctagatctct tggcaacctt gcgagttgtc 8340  
 ctgcgggggc cgaaaatttc caaagcgtcg actagaaaat atgactgtct aagactaatt 8400

tggaagtcac gacgcctttt tggcttagcg gtatatttta ccgatacaaa gccagtgggt 8460  
 cattcaaagt tccaactcaa cccaattttt gcggaatagg tttagcaa atctaatgc 8520  
 gtcaccaaag tgagcacagc ctacgagccc gggctgggtca tttcaccata ctctgcctag 8580  
 aattccgctt gcatacaggt tgcagagcaa tgtagtagct gcgaatttag gttcccaacc 8640  
 catcaacagc ccaaattgga cctcgatcat ttgggcattc aggacccaag aacaccagag 8700  
 gcagaatatg ctgaaaatta gatccggcga tgtttctgga aatgttacat attctctaca 8760  
 atttgatgta aagttttcag ttgccgtgtt tatagcaatg ttacagccag gttgctgcta 8820  
 tcataacggt gtaacaggaa tatacttcat caaacctgat ccattgaat cggctctttt 8880  
 tgaagccccg ctcatctacc ttaacagtgc cactctgata ggggcctacg acagatacta 8940  
 aagccatcgc agtgccctgt gaaactttat actgaagaac caggagtata caatcaaact 9000  
 cgaaagcaac aaggaccagc aacatatgct catacttttg ggtgccaatc atttagatca 9060  
 attgtctttc caaatatctc tcggaccttc ttggtagatt aagagcgac aacgtgtcat 9120  
 gactttgatt gaaagtagcc ctgcacaatt cacccttggt gcgtgttcac tagtatgagc 9180  
 caaccctca tggctctactg ttccatatta actgctcaat ttctttagag gcgtggcatt 9240  
 tttggtgcta attgtggtct atagctactt tttccacca ctggctcgag ttccaggacc 9300  
 ttggactgga gcggttttcc cggttaaggc aacctagaag ttgtttggtt ctaccagatc 9360  
 tgagatttaa cttcttatac ccatagttct ggtcgataag caccttgtag cgccggagat 9420  
 tgaaccacga tcttgcagaa ctacataaaa tctacggtca gagccactct ccagctctc 9480  
 aagcttcggc ggcccgtga tggccagag gaatccaggc cctgttggtc gagttggccc 9540  
 caaccaactg tcattcgcaa ctatcgaag tcaaaagatg atctacaatg ccaaaccaac 9600  
 caataatggc tccgatgagc attttgagc agacgggacc ctacaggatg tgctactctc 9660  
 aatgatacta ggagcaccta atataggttc tctatcgaac cgagctgagc ataagaagat 9720  
 gagaaagcgt ttactgcctg gatttacatc aaacacgac ttcgaacagg agccccgtct 9780  
 gcgcctgcac gtagaccaac tcctgcatag acttgcgcaa gatgcagggt tgatcaattt 9840  
 gactagccat ttttcgagat tcctatggga ccttattggt gacttctcat ttggagagcc 9900  
 tcttgttcca gagaagcacg gtgagccctt tttgttcatt ttatgcttgt atttattgaa 9960  
 tactctgcta agtagagctt cgcacagaca agttgaagtc aatggttgaa atataccaag 10020

gatgctttcc cctactcgaa gctatcaatc atgtcgttcc agaaatcaat gccgtgatca 10080  
ggctggcttt tcggctagta cccccagcta ctctgcgtgc ggtcttgccc actgccacac 10140  
tgagagggta cggtcattct gctgttgaat ctgacaacac atcgctccac tagtaacata 10200  
acttcaaaaag gccaacatat ctggaatata tgaccaattc ttgctatata ggtgccgcta 10260  
accgaggttg tatcttctct agttgcgttg accgacagga cggccgatca gactttctca 10320  
cgcatattat gggcgacaaa agccgcgacc cgacagaact agagttaagt tatgatgagg 10380  
tgcatagtaa cgccaccgtt ctcatgtgag tcgtgactac ctgaggccgc catgataagt 10440  
ggattattgt aactgaatta tatgtttagg atcgccggct acaagacgac tgagacatcc 10500  
ctttcagccc tgttctaccg aattttgtca accccaggag tactcaagaa tcttcagagt 10560  
gagcttttta gcaacttcca gagcatcgat ggaatcacgg ggagaaaact gctgtcactg 10620  
ccatatttga atgggtgtat ctacgaatcg ctccgtttgg ccccccggt tcggggaaag 10680  
ttcgcgctctc gtogatcccc gggggcggta attcaaggct tctacgtccc tcctgggacg 10740  
gaagtattta cagagacgta caccatgcag cggacgccgc tttactggta cgccccggac 10800  
gagtaccatc cggaacgctg gcttaaacag agtgagggtg gtcctatgct caagatgtgc 10860  
acgaggcatt caagccattt agctcaggtc cccgagcatg ccttgggaaga gaaatggccc 10920  
t 10921

<210> 4976  
<211> 6266  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 4976  
gtttatagtc gccaatacga tcgcccaggt gactgggtg atggcctccc ggtaggtact 60  
cccacgcggc ttcggtatgc ctctctagaa gccattgag cgctagtccc aagtgcacagg 120  
ggccaacatg tcggactcct gagggctcgg attctccgct gtatgaacca gcctctgctt 180  
cctcctggtt actgaaagct tctgaaggct ctctatgaga ctgttctaaa cgatctctag 240  
gtgagtcagc aatggaggag cgctggatgg caggctcaac gactccaga ggtgacatgt 300  
ctaccaaagc tcgggttggtg aagaagggtt gcgggatata aaggatgaac gtgaatgatc 360  
gcaaaacaac tgggctgaag aagaaaagga aacgagaaaa tcatgagcta gttaagtatg 420

agtatgtgtg gtgaagttta ccatcaggat gaaagggccg ctcccctttg ttctcttctg 480  
 tggaacggaa cagggctgac tctgcacgcc atggtagtag acaggtcttc agcgacgatg 540  
 agtcaagctt tgattggaca tttcaatcta ttcttttag tttcatcaat tacctgggtc 600  
 cattcaccca ttcagatcat gattccaaaa ataaccatcc cctgtcattg cgttgcgaga 660  
 gccatcacca gatgaggaat ctttcaagtt gatactttaa taatggctgg tctatattta 720  
 acgttcatga ccatctaagg catcttagaa cggatattca atccatatca gacgtatttt 780  
 caagcgccca cttctaggcc gctattttctc aggaaattca cagcacagcg taaagcctgg 840  
 aagagacgaa acacacctgc atatgcacct ctaccactca aaggggcaat aatacccccg 900  
 ggtgatgcaa ccgagagcca catacatggc atttaatgtg tttcatctta atagtatccg 960  
 ttgcccacct ggagaccgaa gccctcaagt cattgtaact tgctttgatg ctaaagggtgc 1020  
 ttgagctatt cctggctctt aatctttccc tcactataga atattgacat gaccgttttc 1080  
 gtccgtttca gttgacacgg tctcaccgg ttgatctcga aacgctagaa gatttcgaaa 1140  
 cttgtcgta tcagagtttt caagcctgtc tggttctcga tgtcttcgac acgccctttg 1200  
 atccaggcct cttactagca agcctgcaat tggctgcagc gaaggaacgg ctacgaggcg 1260  
 catctacaca ggatgagtat cgtgaaaaaa gttactctt caaacgtct tccaccgaaa 1320  
 tgcgtcggtt ctaatgtaca gctctgcata aagacatgcg gaataccttt accaaagggtg 1380  
 agtttaatat tatcaaaagc atcagtaacc caaccgtttt aggaggagat aagagctccc 1440  
 tacccaacgc tccggttcgg ttgccactac tactatcgtc tcttagccta cctaaaaaat 1500  
 tcctccttta atctcatgat gatgccggca ttggtaggca ttgaagtccc actgtatttt 1560  
 gctagtctgc tttggtttgt tttggcgta tttgtttctg atgttggtgc tatctttcac 1620  
 gtcttttgc gtctgttatg ctattccaag ttctcttac ctgttacttt cgatattcta 1680  
 tatagcagcg tggtatccct caactggatt gacgtctata tactcttgta ccgtagcg 1740  
 ttggaagtta taggtttgca atagttaatg accggcgatc ggatagatgt ctcgacgaac 1800  
 agcttttttt aaaaaaaaaa aaaaaaagc cggcctaaca ctttctgtat atcgataggt 1860  
 ttgaccaagt ggctatcttg tgctttactc caagaactag cagaccacga cttagatggt 1920  
 tcttcaactt tcaccagcac ccctagtaat attcattttc agactgcaca tccatgggtca 1980  
 tcaagacatg ttctacatct aatacagaac cagatagatg acgtcacgga gaatgcagag 2040

gtctatttgc aagtgagtaa gcttggttgc ccataactcg agcgaccacg cttgatttct 2100  
 gtcccagtct ctgtacgatg tcaactggagt tctgggggtgc gtatatatgg cagggcttac 2160  
 catcagacta tgtaaggttg cctacatctc cacttgtttt atggagtaga gtattgttcg 2220  
 ggtcttcccc gaagatctga acggtaacca tctgcgaact tgcaacttta cattcgctaa 2280  
 ttcgtgactg tggaaaatca tctgttcaat atcacgcgag ctcttggtct gcaccgccag 2340  
 cggcgtcgat atctctgctc taccacactt tgtaatgcct tggcctgttc tgtttggtcg 2400  
 ccaaaccctt accttctagg actgctgcat gaaaatagtg ccaacctgtg gcttggtaaa 2460  
 tacaattaaa cttggcctag ttggattgca tgtggggatt ttaatgcaag acatacacag 2520  
 ccttgacgat gacactgcga agattgcgcg gagattaggt ggccggtcat caatgttacc 2580  
 ttgaagcaat ctctcaggaa gcctctgaag cagctgcgat ttgacgctga tggcgagcga 2640  
 gacaccatca tccggaacta gtaagacgat gggaagtata atctcaccac tgatgtcctg 2700  
 tacattatca ttaagattgt ttgagactct cggggcgtag caaatacaga ctctaagact 2760  
 gcattattgc ttacatacag aaataataac cccagcgta ttaaagggtc gacaactcac 2820  
 ggagactgct gcatgccccaa tatcatgcaa ctgcggatgt ttaggaggtt tcagataggt 2880  
 atgtgtacta tggattgaag ctatcatctt attacgaatg atagggtca tcccggtagc 2940  
 cattttcgtg ggaatactca ctagcacaac gactgcagga cctcctaagc tgcacagtga 3000  
 gaggaagaa acctacagat tatattatgc tacccaatag tcttttggac ttccttcttt 3060  
 aaaggttatg actcaattct catcctgggg cgtgttttag ggctcagcaa gcgcaagtgc 3120  
 aacccttatt tcatcaaagt ttgatctacc aactattat tagactcaat cactgctctc 3180  
 aagtcacata acgctgaaag acttataccg ttccaaagct gatagaatag cgatgatgtt 3240  
 acgaagtcct cgcccttaag agtcagaca aaccatttt ctctcagcc cttgccgagt 3300  
 tctgcccagt caaccacaac atcttctact tctcagagat ctccactgca ggaatcctcc 3360  
 gattggatat acaattatgt cagaagtatc aataactagc accgataacg cctatcttgc 3420  
 atactcgga cgtcctcagt gcggatcacc tctgcacata tggttccata cccgacgctt 3480  
 gatagacggg ctcttgact ctaaacggga tccggagatt tgataacgga gctgacggta 3540  
 cggtaggacc cagcataccc gcatagcatt ctgtggccgc cgtacataag gacgtgctgt 3600  
 taggggagag catgttgac atgtatccac gtactagtag cagctaccct atcgtggata 3660

cggtatgggt ggcttcattc gcacataaat aatgttactc tggtagatag ctgatggctg 3720  
 atgaacatat aaagcatgag gtcgtccttg cagcatacct atgaagagta cgcacaaata 3780  
 ttatttttga actggtaacc ctaactccaa gggacataaa ccaggcgaat gtacatccag 3840  
 tggcccgaag cagatattgt ccgtttaaat gatatttagt accgtcctcg cctgtgaagt 3900  
 gcttgatata agattactct tcggctgggtg gattgtcttt aactacgaag caagacatct 3960  
 agatgctttg tactcccaat gcatcgaagc agacctctac cagaaggcaa atgcgcagggt 4020  
 gaaaagcccc agagagcaat aatatttctt aatttgattt ataataaag atcaatgact 4080  
 tgtgtatgat ataccatgac cctcagtcac tctggctgtc aatattgaag tctcccagac 4140  
 tgctggacaa tactggctaa ccatatttga agattgacac tactatgaca aggtttattg 4200  
 ccgggctagc tcgaacctgg aactgatata ggcaatcaag attcagagaa gtgccgcttt 4260  
 actggaagct agatggctac actgtatagc gaagcctggc gtacctagtc ggaacatcga 4320  
 agtctctact cgggcagggt cgggtgtcac ttacctagtc ctccaaaatt actccgtcca 4380  
 aattattccg tcgttcattc tgctattttg gctaaatttc ggggatttca gcttgtaagg 4440  
 cttcgatgac ctttcgtcag ttctagcagc acggcacatc ccgtccatc ccatgatgct 4500  
 atctcgacat aacttcatcc atttcctcca gcttttccta aacaagcatg cgggctgctt 4560  
 cgattcatgg tgagattcac tcccgcctaa cttatggggc gagatcgaca catcaagagg 4620  
 atcacagtaa cacagcgggg tatatcctcg ataggcagtc tcgcaattcc cgtaaaggga 4680  
 aaataagcga ccaagatcat atccagaatt aagggttcag tcaccgtgac atcaaacgct 4740  
 agcctggaaa ctgtggggcc cggcacagac ccagatctag ccggtgtggg acggtccatt 4800  
 tttcagcttt tgggtcagga caggcaccat tcaggagtag atcaggcccg gttatcaggc 4860  
 aaagatcgca cataatgtgt gggcaaggta gccagagcc cgcacgggaa actggatcat 4920  
 ctgtgccggg aggctggta atccacaata gaggccaca tcacaccgtg gagcttgacc 4980  
 atatactcag cagtgtggtc tcagctcttt aaaccggata agtgggtgct aactgggca 5040  
 gcagtcggtc tccacgtcgg aacatccct tgcttgcaat ctgactggg tcatattgtt 5100  
 ccagcgcaca ggcactagag tccacccttg gcatcaggat ttatttcacg cgcaaacgaa 5160  
 ccggttccaa caattggcgt gcatgggtcg tcagagacgc ctacggggag gtcacggctg 5220  
 gcggaatccg aagactgcct ggcgttctag tcctgtgat tccactgctg ctgcatgcac 5280

tatgcacctt cctgctagtt gtgatttggc gttgtggctt cagccatccc gctgtaggta 5340  
cggagtagat gcgcctcgca agtgtttaca ggacaggtaa ttctgtagag agctgaagtc 5400  
gatcaggcga gatccgttag ctteggttac gaatcggaac tgggcttgct ggggtttccg 5460  
acgcggcgag ccgcccgcgc atcgattggc gcagcaaagc caatgttctt caaaccggga 5520  
cgatggtatt gtaatatgtt catattgaaa tacggcggta aagagaaaca ctttcttatg 5580  
ggatgcttat tgccgaacca agaagttttt ggagttctca cggacactat tgaccgtcaa 5640  
atgtcagtct ggaaacttaa ccatgctgct tctcacttc attggtctat gtacctgaaa 5700  
acaactaacc tttgtccctt aatgacttgg attcggctct aagctagaga gcagctcagt 5760  
atgacacgta gaaaagccga tagggttgaa gcgcgcagag tctggaagac cgaacctgta 5820  
agatgtggct ggtaggcaag gccacaaaag tgttacggat aatatctctt tgacgtggct 5880  
gactacaatg aaagcttggt atggccaaag ccaaggcctt acgggcacgc ccctatccgc 5940  
gctcagtcag cagacggtac gttccccttc tacaactcgc cttgcagatc acagctccaa 6000  
ctcactactt ttcaatctag tcagatgtga cgtatcgcg agccagagct agcttcaagc 6060  
tggcttcctt cggctatgga accgttcggc aatcaatgaa ttctcactga acgcaccggt 6120  
cggcgatagt gttgatcctc tcagggcggt tctcattcta gaacaccacg gcagccatcg 6180  
agagagttaa cttctacgtt ctttgtcaaa gtcccttggt tacaatctat cattatggta 6240  
ttctcttctc cctcctgggt gccacg 6266

<210> 4977  
<211> 3170  
<212> DNA  
<213> Aspergillus nidulans

<400> 4977

ttctctccg ttgcgatctc cggcgctccga atcatgtgca gcgttgactg gacccgcgc 60  
aatagattca ttctcacggc ttcgttcgag gtcggtatgg ctgccacact tgtaccagat 120  
tggttctcgt atttttttac gtatagtggg gacaaccatg cgcttgaggg gcttttgag 180  
gctgtcgagc tggatcatggc aaatgggttc gcggttacag ggttcttggg tctcctactg 240  
aatttgatcc taccgcagga tatggaggag gatgttggtg agtccgaaga ggactatgaa 300  
gccacaactg tgggtggggat gcagggcggg agtgagcctg gttcctctgg tcagaatgtg 360

aaggcctaag aactgcaaat gaacgctttg tttggctcga ctctagaatt gctttgcatc 420  
tttttggctt tataagttgc atatactata attatatttg tccatatgta ctatgtataa 480  
tctcataccg cgcgacaaat ctcgcttgat aggggaggac atttctaccc cttccaccac 540  
tttcggcggc actaacattg cgtatagcac tgctcgaccc tataaaatac agaaattgca 600  
tctccaacct gtatctgcga ttctgcagct tgtcagtaaa tccactaaca gcaagaaggg 660  
aagagaaaag tgtctaggac gcattctgaa ccatttatca taagaattaa caacgcacct 720  
tcaacggccg gcaactgctg catccccaaa caagcattcg tcaaataccc cttatcaatc 780  
ctcctatagc tcttcagcgt ccgatccggc tcagaaggat gccgagtcct tgtgtccggg 840  
tcgacgttgg gtagtttgca cgggactgtg cggcaggctg tgtacattat taacgcctgt 900  
tctgcgctgt ctcttcacac atcctcttta ggtgctttct tttttgcagt agctggagag 960  
atacgaataa ctttccaatc gtcttctca aacgccttcg gaccctggac gataatattt 1020  
gccctgaaac gccgaacgct tagatcagga atatcttctg cgcaccgtgc attcacatcg 1080  
cgcacgctag aaagtgaat aatgtggatt gggtaggcgt ctgcgaagcc tgtttggggc 1140  
tggaacccta tttcttgttt ccgcggtgcg ttacggtaga ttttgcgctg gtgggtaggg 1200  
ttcactcgga agagagtaat acggcgatga ctgctgttgg cggtaattct gctggctagg 1260  
ttgaaatttg ggaagccttc attgaggaag tcgtggaatg acgatggaat gtattgcccc 1320  
tagttgtatg ctacggggtt gtctttccag atcttgacac gctcgcgggg gacaccagag 1380  
tccagtttca tattttcaga ccctgaaggt tgacagagag ggaccgtgaa tgacccctct 1440  
cgagcgatga gaccgaaatg caccctattt ggaaaacggc tgagtgtact gcatgacagc 1500  
ccaggccaca atatggatta ggacgggggt aataaaccag catgactccg cctgatctta 1560  
cctcttcaag gtcagatcta tatccctgca tggtagcatc aggaaccag atctctggac 1620  
gaacgagagc aagtctgttg aaaccccggt tacgaagggt tctcgcaatc caattcccct 1680  
tctcatccag ctccgcaaag cagaactgtc ggtcaaaggc aaatcccgtg ggcactattc 1740  
ccgactcgtc aagttcgatg cccttgcagc tctttattgg gtacgtgaag agcgctttaa 1800  
tgcgccatgc tggacagcct cgctcatctg tactagattc tgaaaagcca ctgctgtttt 1860  
ttggatcata ttcgtcatga aggttgcttt ggcttttcgg aaggcctatc cttcgacaac 1920  
cgcgtggcgt aatagcagcg gtattctcag ctgagaacct gatgacagcg tagactgtga 1980

atataaggac gcctgatatg gcgaggatgg tattgagtaa tatgacactt tgctgggggtt 2040  
 ccagcattgc cggatccac aattgttgaa tgccttgcac caacacacag atacaagact 2100  
 ccgtgaatcc tgaaggctaa tttctgtata taaaatataa ccaatgtgac cgaacgttta 2160  
 ggttgaagag tgatatagga gccgatgcag atctgaaaaa tcccattggc cgatcctgat 2220  
 tgtcagattg ggaatagcgc aacaccatcc caaccatctc acgtgcttgc aattggccca 2280  
 gcttcccttt ctggtaaaac cactcaagct tagcagtcaa cattgtgctt cctgcgccag 2340  
 ctgaagatat tggcacggcg gagtatttcg aatgtcaaca gtacaatttc taagggttgg 2400  
 aatgggactt gttctcagac ttaccgtcga ttgatgttcc aagatggaca cacaagagct 2460  
 gtcagcccg gcaactcaac gactccgtac gcagtctctc gacgcttgta gtggcttgat 2520  
 ctgacatatt caggctctgt cgtttcttat tctgcatcgc aatccttaca ggcgtcagca 2580  
 gccctcagtg tcggtgccat cccaactggc atcactcaac tagataatgc gatcagtcgc 2640  
 ctccccgcag aacaagatga tgacgccgac tcccgcgga ttcctcaggc ccaagtaaca 2700  
 gaagtctttg gaccgcctgg tgttggaag acgtctcttg cgtatgtcct ccaggagtgc 2760  
 ccgtatgcaa gcctaactta tttgaaggct caacgtcgcc tcgaacgctc tccttgctgg 2820  
 cggaagggtg gtttggttg gtatgctatc tggctcttcc ttaaaacgca gactgatgcc 2880  
 attcagatac tggctctcca ctgccccggc tacgtcttcg cgatgttcta cagaagtcca 2940  
 ttgaggtttc aaaatcacct caaacagcgg agcaacttgt gcaaaacctg actcatattc 3000  
 gagcccagtc tctgcctcac atactcgac tcctactaca tccccgtca acatttccac 3060  
 cccaggactg cagattacta gtcgtcgact ctgcctcagg gccctatgag tcatacttcc 3120  
 caaatccac ggaactcaag gcacgccttg gcagcaaaaa atatgataag 3170

<210> 4978  
 <211> 4260  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 4978

gctgcaatac aagcccggag actgcagcgt ttctcatctg gctcaacgcc atctgaatat 60  
 cttccgagtt gtctctggcc aggttaacct tgtccaacca acgctttcag gcagtatgcc 120  
 ctgctctact aagcccttcc ccaggatcag ttgcctcagt ctagtctcgg gtggcaagcc 180

tgtcgctgac actacaagtt cgggttggat gcagcactcc agaccagcag ccttgcatgt 240  
 catctacgaa gtacctgaaa caggataggg gagttctagc tgaccgtatc ttcagccgta 300  
 tttatcgggtg ctgaccatag ccagggtgct agggcccagg agagagcggg atccagggcc 360  
 ctacgatcgg aaaagacgtg ttacattgag gcctatacca gtcatggcct ctggtggaga 420  
 ggcagggtta cacatccctc ttttcagtga gattaggcca tctcctgccc tgtgagcagc 480  
 gtttcacaaa tcgcacttca actagtatat ccgcttcagc taatagacaa gaaccctaag 540  
 agtattggac atcccggcat ctacttcac cactactcttg cctcgtcaat actcttgccg 600  
 gattattgga tcaagtgcac agctgtaacg tagcttggtg gctttgctcg ctgacgcacc 660  
 gtaccacctc gctagcctag cctgacgtt ctacagcctg aaaaccagca acttcgggat 720  
 ctcggaactg ggcgagggtta gatcaccggg tcaacttaac tcagctgcct aggtgcaggg 780  
 cagtcctcag aggggctatg tggcgcttct caaccgggac ggccctgggg tctgcatgtt 840  
 cgacccacag tgcacaaggt attatttgcc aatgaagaga gacaagggt gtacatcagt 900  
 cagcccggtta tcaccgatec taatctaggg cgccagcagc gtcatgcagg agttcctacg 960  
 ccaggatctc aaggaaggga gtaaaggggt gggtaaatat accggagatc agcatctccg 1020  
 gtaagcacta ttgagtatat gatatgacat agccactaac aaaacaaggg agctttgtac 1080  
 cattcaatat ttttggccaa aacggttaca agcagaccaa gctgcatctc tagcgtcaac 1140  
 cggaataaaa acaccgttcc ccacagtcag cagaaagccg gactcgaata caccggctag 1200  
 ccatttgtcc gcagcagccc gaaaaatctc gcatattcgg ctgcaatagg ggaatgtatc 1260  
 atgcctaataa aaatgataag agaaaagaat aaatatgtaa taataccccg ctcaaacaag 1320  
 cataccatgc ctcgggcatc agcccacaac tcgcaggata ctataaagca ggtatgcccc 1380  
 tcccatgcat tgctgatat tccctatatg acaggaagag tcacgtcctt tgcttggtga 1440  
 atagccattg ctggccttac agggcgtttt cgcaatgaca gtagccgctc tatcgcggcc 1500  
 gaccttctcc cttgtcgacc atgacggacg cactttcaca gacacagacc ttcattggagc 1560  
 atactcacta atctttttcg gcttcacaaa ctgcgtccgc gtgtgcccc gggtctctggg 1620  
 acgactatct ggcgtcctgg cggacctaaa gatggttgct gagccggtca aggcgtacta 1680  
 cgtctctgtc gaccccgatc gtgacacgcc agaagtcattg aaaactttcc ttgaagcgta 1740  
 cccggccttc attggtctaa cagggacgca ggcccagatc gatgttgctc gcaggaggtt 1800

tcgtgtcttt gctaaagcga aggaagacga aactgcgcat ggcgggtatg tggccccca 1860  
 tacggctatt acctatctcc tcaatagggg cggctatata gtagaccatt tcaatgactc 1920  
 cgttgacgcg gagaccgtca ccgctcgtat tttaaagaaa gtacatgcat cattgcacgc 1980  
 caacgacact acccaggaca ctagcaaacc cgagagcctc gatatacctaa ctcgagacca 2040  
 agtcgcatca attcgccaca ttggaaacct cgcgcggcaa cttaaaggcg actggacgca 2100  
 catgatggag accatgatat cagtttgtca agctacttag ataactcata gacaaccatt 2160  
 gtctacctat tgctggacta tctcttcctt gtactctccg cggccgcctg gaccccaact 2220  
 ccaaccaagt tcccatactt gagcgtattc atcgtcgcag cgaactgcgt cgcgcggggg 2280  
 gaaacggtta gaatcatcgc cgtgtacctt tcaactgttg cattgtttcg actgctgctg 2340  
 ccttcggttg tattegagcc ggagctcgag ctagactcaa agtgtcctct gagaaccatt 2400  
 gtcaacgggg aagaacggta ggggatgcgc gcctggccca gggccctcgc tctgatcact 2460  
 tccttgagcg cgaggaggtc tgtgttaatc tgtctccctt cgcgctgttc ttgggggtgtt 2520  
 tgtttgccc gcacaacagg gctggctggg gtcgacatcg atttatcgtg gtagtactcc 2580  
 gatccagcaa gatcgacgaa gaccagcttc ccccaagac agtcgtacct acaggatgag 2640  
 aagacagcat cgacgccatc ttctgcacgc ctaccgcaa tctcaaactc ggcctttctt 2700  
 gcttcggcct tgctgatccg ttcttggtca atgctgtatt ccgggttggg aacgtacttg 2760  
 ccatttgcat cctgtatgaa tgctttcata ttctctcga ggtagacgtc tgctgccctc 2820  
 ttcgccacag ggacaagctc gctctgccgt tcaatcaccg cttcccgggc gttgagtaga 2880  
 gccctggtga ttatctccag ctccagcacc gcgtgcgttc gcgaactctg gtcatgaatc 2940  
 gttgaagtcc ctgttgtacg cagttctagt ccggagagta ccgtcgttcg cagctcgtcg 3000  
 aatgtccagc acgggctctg cgtgatggga cggacacgca cgcgtccgtc ggccaacgtg 3060  
 tctgtttccc cgcgaatgtg cgttttcccg tcagcgcctt cgcgtatatg gcagggcacc 3120  
 ttgtcttggt actggccggt acgattaaga aggtcgaatg ctgtgttccc gcgaagctcg 3180  
 tacatgctta ttccgacacc gagctggctc ccgtctttgg acaaagatga caagtactga 3240  
 aacacctccc tccccgccc aagacatagc ccgaactgct cctcgttttg aaagtcatac 3300  
 ccgatcatcg tgtgtgactt tccgctgccc gagtgtccgt atgcaaggaa gttggctcgtt 3360  
 tcgcccggccc agacgcgcgg gaggacggga gccacgacgg catcgaagac ggttctgttg 3420

ctgacagcct ctgtggcctc gaagacgtgt ctgagtgtgg caccgctttt ccaggggscgg 3480  
 acggtctttg ataggtgttc tgggggcgtg agggaaatcg agatgccagt ggcattgtgt 3540  
 cttcccttgg caagggggag tgtgtgcggg taatctctgc cttcgctgaa cctggaacag 3600  
 ggcgccatct aacaaagata tcaaattggca ttctggaagt tgggaagaag ggaaagacag 3660  
 aattcgacac tctggggccg aagggtattt gcaggaggac tcaagagtac accgtattta 3720  
 tgactcttca tacagagaat ggcctcattg gctcggactt ctgggggtcg caatcgccgt 3780  
 gcaagaaagc gctataactg gtcgtatacc aatgtgggtc agctatgaaa tcatgggtct 3840  
 acacacatgg tcaggcagtc taggctcaa cactacagct tcaactccac ccatgatact 3900  
 tctcgcttat ccagcctga agcatccact cactcaatga agcccaaag tcttgcattt 3960  
 gggcccttta ctgaataagc acgatgaaca ggatctgtaa ttgcctcagc ctttgttacc 4020  
 gtctaagagg ataattctcg ccagagttcg ccgcagacaa gacaatgaca tccggtctcg 4080  
 gcctttcaga agagatacta tcatacttct aaggcactag tccacttgca atagagtgt 4140  
 atgagcagct cataaaattt gttatcacga cggcatgata ctattgcaag tgcttgttgt 4200  
 gaacgacagc ttcttctaac ctatttatcc tgggattagg gtatagcacg gtggttacat 4260

<210> 4979  
 <211> 8857  
 <212> DNA  
 <213> Aspergillus nidulans  
 <223> unsure at all n locations  
 <400> 4979

gtagatcaat agggtttctc ttatttaggt tatgccagcc gccttcatca gaaagatggc 60  
 ctgatattct ttgactatct aaccctttag ggaagaattg ccggacctgt taccaagcac 120  
 taccgtgttg ttatcatgca ataaaacaga ctctaaagt gatcactcat ctacacagtc 180  
 cgcaggaact ggctgactgc agatactttg acattccctc tttctccgac aagaaatata 240  
 tataactcgg tcttttcaa aatgccgccg caattctatg gggacagtca ccctatgcgt 300  
 tcctacgggg ggtcaaagag atccagattc ctattcttc aagggaatga ttaaggaaag 360  
 tcattttcaa aggggctatc tgggtccgag gggtaccggt tacagaatgc tgactatcct 420  
 aagtaaaatt tctcataccg ggcacatcca caaccccggt ggggtataagc ttcattggaat 480

gctctatgca tgccttatga gcataaacat tgaactcata aatcccgaca agtactgggt 540  
cacaggggca agaggtaaag tattgaagag gtcggacgac aagaggggga cgaattttta 600  
atcgtatagt catattagca tcagaacaaa agggggcatg tccaaattgt ccgaaatttg 660  
gacatgctga tcaggaccat gttacaatat ttaggtccag gtcctccggt caaattgctg 720  
ggacagagcg ctgtagccat ggcttggaag cgacattgag gctactcagg ccgcacatgc 780  
acagtggaaa agtaatgctg cacatcaaac tgactccagg cgctcctgac tgctggctgc 840  
ccgcagtggg gagtcggcgc cctctgagtt ttaagagatc aaagtacagt ggtatataaa 900  
agattaacca ccaggtcgga tttgagttcc ttgctgggat gggaactatg aggaattgga 960  
gaaatggaat aaacacgggc tgaatacagg cctgatgatt gttcttcggt gatcttattg 1020  
tatttgtctc ttcgacaatc aacatgagac ggctagtcct gtatagttag atgggcaggg 1080  
ctgcctcca agagtgcag acaattctca gtagattaat agaatcgaga caggaaatcat 1140  
tgcccaaact caggcccagt gatatatggc aactcctca tcagagagtc caaaaaaggc 1200  
catatcaaac cctagaact cctagtcagt ggcacagcc gctaaggggg caagttcaag 1260  
tctgcctaaa ggtgtctcaa cacaaatgtc tcgtcatctg tggccacaga ggccgggaaa 1320  
tatgctctag ctcttagagg ctgggcccac tgatctgtat ctacatcata ccccgaaatcg 1380  
ttgctccgga tatcagtata ccaactggcct ttatttgagg gagcgaagaa ttgaggtttc 1440  
ttgattcacc cgcactggaa ctgaccttct cttttattat gccagccttc ggggtagaac 1500  
ccgccggcac gcacaaatct ccttgctccc gacctagaac ctacgtgatt ctgtactctc 1560  
catgtttacc cacctgcaac gcaagcctga tgcctcaggg ccatgattcc acacatgggt 1620  
tccaatttca cgtctgcctt ggaacgagag caggatatga taggagtaga agtagagcag 1680  
cggcatttag tgcaatctat ggtgttctgt aaagcaggac cacgtaatcc ctcaaacagc 1740  
catatgcaaa tctgctagg tctggcctgg cgcggtccg gtgcctgcga tgggtatttc 1800  
agagccagcg agtcgtcgag gagagacagt atcgtacccc gtgtaaatgg ccatcgccat 1860  
cagggtagc ccaggatggc acatgggcgt ggacattcag ctacaacatg agtttgttcg 1920  
caactaccat aacctgtgct gctgaaatca ctccaaaact cacaggcaaa aactcgcagg 1980  
cagagtaggc gatggcgctt caccacaacc caagtgtcgc agcgcagatt gcaagacagg 2040  
gtcaagatcc accaattagg taacgtgaaa attattcaaa gacgccttag acccaaagtc 2100

agacacgctt ccctggtcta acatgcgcag agctgaccgg gcgtctccgt agcctacgca 2160  
 ggcgggggtc ccagccctac ccacaatgtc ccattcattg ccgattctag aagttgaatg 2220  
 tcgaactcta gtctccactc ccagaggatc aaacgcccag gattctgata ccaaccttag 2280  
 agcggttggg gtgctccacc tgtgtaccgt gtagctcgta ggcacggagc ccacgacgta 2340  
 gtccttagac gagccccacc acgagcctga ggcgcaagtc tcaacagatc taccggaccg 2400  
 gggcttgggc ttgggcactg ttccaccac gatcttcccg ctggtgaaaa tggcagagca 2460  
 gttattaaat gttaatacgg tgcgctgagg cactgacccc ccgttatggc ggcggactgt 2520  
 gaggagagta atcggagcag accaatgcag agtacttcag ctagggacta ggcactagct 2580  
 ggctggcct tggccaccog acgggctctc agtctggggc aaaccaacg ctgacaggct 2640  
 ccacggcggt gtcagcttag aaggggcaat ggtaggtaaa tggcagtgcg tgtttcgttt 2700  
 gcgcccgcgg cgtagttctg ggataacccc agctagtggc ccctacagtg aggagctaac 2760  
 taggaattca ggaccagagg atataattgc cgctcttcca cgcagatcta cagcagagta 2820  
 tagccctccg gttactgagg gatgggattt gggctgatct cccagtgtc tgatccacaa 2880  
 tctaattccc gcattcaact catgccgttg actcatgtca tatggggcgc agaggggaag 2940  
 tatctcagaa tctcaaacag ccaacgggcc gaatgcaacc aaatctcgat gtcaggatca 3000  
 cccggcgctc caggatttgg atgtcattcg tctgtgggcc gggacggtag tcgcgaattt 3060  
 tctggaagg aagtggcaaa gcgaaggata cccaacaacag cttggaggca ttaagctgtt 3120  
 gcaagtgcag gtgtagatgt ggtcctgata tatacggtgg tcatgcctaa atagccaagg 3180  
 ataagagtat ggacagacaa gtgagagaaa tcagttcatt ctagcagata ccacaccagg 3240  
 aggtctgcat ggacaataga tagagatgat tgacaatcat gtatataata gtacagttgg 3300  
 agaagaaatc aataagaaaa taaaccaagg atcgacagga cagtatccac ccagattcac 3360  
 caaaattaag cagtatgaaa caaacacagg cgctaagagt acagccacaa ctccaatgaa 3420  
 accatagaaa agaacagcgg aatatatcca aaatacaaaa aaataaagaa aaaagagccg 3480  
 accgaagaga ttagtccaga gagtatgctt ctgggaaaat taagcattaa gatcaattct 3540  
 taatcgccga cttctctttt ccgcgcagca taaaccccac aaagctcttg gccgacgatg 3600  
 gagtctccga ttccttgtcc ttggactgtt tcatgctctt cttgctgctg tgggtcttgc 3660  
 tcttgcctt ggaggatgtc ttctgctctt ctggttgagg gttgagctcc gctcgcagac 3720

tgctggacga ataccacccc atcggcatcg tgctggacct ggacttgacc atggagattg 3780  
 aaccgcggta gggcagcggc ggacgcttcc cggcggcctg ggaatgcgca gccgacatgc 3840  
 tggagacgct gtagagagac cccgaacggg agcgggttgta ggcgggagcag ccgcaggagt 3900  
 aagggctcgg actcgcattg cgagaggggtg gctggctgga ggagaggggc agggagtatg 3960  
 tggagctggc gcacgagtct tcgtgcccgt taccgtgagt caggattggg gtcgatgtcc 4020  
 gggactggga ctgggctggg aagagagaga aggtcgccgt gctctgggcc gagggtggtc 4080  
 ggcgcgaggg ctcccttctgt aagcgccgcc gcgcgtctgc ggcgggggtc tgaggccgag 4140  
 agaaagacat tgagcgtgca cgaaaggata ggggccgtgg cgcctcgacg gccggcgcg 4200  
 tcatgggctc gttcacggcc tgacggggac cgcagttctt cagcgtatcc agggcgctga 4260  
 ggctgccggg ggtcttggtg tgcaggggcc ggctggaata cggcgagtgg tcccggccgc 4320  
 agtgcggcca tggctcacc aggcaggggt gcgacctgga ggcttcgtcg ttggagtaga 4380  
 ccgagcctga actagcagag gacgagggcg acggcaggtt gccgtctctg ggggggaaag 4440  
 aggaagacgg gcaggactcg gtgggagaga ttaggattag attaggtttt gcgtgttcga 4500  
 cgtatgtgac ctgttcggcc acgaagatat cgctctctgc gtcggaataa acggaggcgg 4560  
 atgaagcaga gttgaatgag ttgcgtgggtg aagtaagtgg ttcagagggg acgtagactg 4620  
 aagtctgcag taagatagga gattgaagcg gggtcgtaga gtcaggagaa gtcagttcga 4680  
 tgatcatctc gtcgtcgtcg tcgtcattgt cgaagatggt gcaaggctcc gtcacaaaag 4740  
 ttgcgtgct gctgcgcttg atggtatcta tagagccggg gcgtgaagtc ttacggtctg 4800  
 ttgggagcga cagcagacga gagaacgccg gtctgccagc ccctgactct gggttgtgct 4860  
 ggtcttggtc gtcattctgc tcctgttcat gggcccgctc gctgacgctc aagatcgagt 4920  
 cgagagtggc cgagcgcttg tgggcatcga gcggcgaggc gtggccctct gattcggaga 4980  
 taccctcttc gtcggagtca tagtgctgtg gaagcgctcg gttcacgtag ctgagatcca 5040  
 gcgctacggg gtcgtacatg atgttgaagt gacagtcgat gtcgagttgt atacagcaga 5100  
 gtaggaatgg ccggatcact actcggggtc accaggacag ttggcggggg ggaagtcgag 5160  
 ggagtcgagg aagtcgggga tgaggtgaaa aattccagca tcagaccgtc ggagggagca 5220  
 ggagttaatg aatgaagggc ttttcagagt gaagaatgat cagggataac gatagattaa 5280  
 tgtctaatga gtctaacgag gctaaccaag tggaccgcag gaataagaac ggctctagt 5340

cagaacgtgc agcgaacatg ccaggataga cgacgtaagc agaccaagca gccgaagcag 5400  
ctaagctggg ccttgctgc catgggcaag ggcaatggcc catgggccat gggcccatgt 5460  
agggacctga aatagagagc ccttgcatag ctacaggtac caaagcacgg ccaatggaca 5520  
gaatctgaca gatccaagct gacctgctat ccaacgtcca catactcgca ctattgaata 5580  
atatgacaga gtcaggtact ctaattctag ccagtgaagc gttccactgc gagagacgcc 5640  
gtcgtcgacg gggctctgtc aagccctaag cctcgcccc tgatccgcca agggccggtt 5700  
ccttatctca aacacgcca cagcagcaga ttgacagccc cagtctagca gaaacatccg 5760  
ctttttgagc aggccaatcg gagattttgt ggccgatggg ccctcgaggg ttccttgctt 5820  
tagtcttctg ggctcgac ccacgccg atcgaccgg aattgatcgt ttcacatagc 5880  
gagccctctc ttaggggtta gcacgaaggg ttgcagaac gcgcttcctt catacccacc 5940  
ctttatcca gagaggtagg ttgagacagt gtcgtatcc agtctggaga ccatgaccat 6000  
gccagcttt aagcttcaca acggactctc cacatgcagg aacgggtgca gtgtgaaacg 6060  
gtcaggtgaa ctctgcgcg gagtggctgg cagttaatag taacagtacg gagcaaactc 6120  
aatcgccct cggtgatgc agggcccgct cagtttatgc aggcaaacc tgctgcaatg 6180  
tgacctgctg ctgccaccac agccggccca gtgcaggcca gttgaggagc gccccgatc 6240  
ctgctcgcg ccttgcgctg tcgctgccc gtctattggc cacgtctccc agcctccgcg 6300  
cttctcggg ctggacggcc acgctgccgt tgagacagtc ctgctccgtt ccagtatact 6360  
gaagagatac ccagaggat atgcagtga ccatgcatgg gccgaacggt gctcactgct 6420  
tggtttctct gccagcctc ccgctcggt ccgctcgta acgtctgctg gactcgctg 6480  
cggtttcaga tcccccaac ggggtgagg gcgccggcg cgggtatag ggtatatact 6540  
acgtacaacg gaggatactc agagtactac gtgtgggtac gactcgatca cctcgccac 6600  
aagagcaca gcgtccatcc cttctttgtt attcttagca ctgctcacc gcaagaacgg 6660  
ggtagatggg atgtcctgac cgatccgaag tctatcaaca ttaactcaa ctagccaagc 6720  
acaactaccg agattgacga ccaagacaga ctaccaagag ggctgcttag acagagacga 6780  
tcgtttcgct aggtcatcca gccgtcaatt gagctgtcac ggctgcttcg agcacaacaa 6840  
tgctggcgat ctgacgagtc atttcgacca atgctacccc ggcctaagt cgggtcagt 6900  
ccaaccctgc tcgtctgaag atgatcagc tgagttaacc aatccagatg ccaaagagac 6960

aaagaaacca ggctgctcta tttgcaggac cagtatggcc gactggcgct aggccgctgg 7020  
 ccagcggcca gcgactggcg gccacttctc caaaacgagc cctcactacg ccaaccgata 7080  
 tcagccgagc cttcactcat ctatctcatt ctcgctccta ccagacgccg ttaactgccg 7140  
 ctactcatgc agaaatgcac ccctctcggt ctttcttggt ctctgccaac gccccgttc 7200  
 gtgttcctgt tctgttcct gtgggtggct gtctcgcat gattgcctaa tatcaacggc 7260  
 cgtgcataaa tctgcttaca acgagtgact ccgacatggg catgaaacat gcacccctgac 7320  
 ggttcccaac gcgtgacgcc ctccccctaa cctgaaacag gagaagggct tgacctccga 7380  
 gccagccaag ccagccccgag tcttatttct cccgggctat tattagacgg ggattctgca 7440  
 catatggcat attcagagcc agggatatatt aagtactccg caccagctct ccagcagaga 7500  
 accgctgcag atgcttgatg acagcacaaa atgggtaccc tctcgaccaa tcaagctgcg 7560  
 gtatgtttgc gtcactctga agaatcatag catgatcacg accaagtaag tgctatccct 7620  
 gttttcaggc gattcccagt cgacgatcaa tggctctgaa ttcacaaaat gcaacctggg 7680  
 acggtgcagc gatgatcttc caacgcgnt atgaattgtg gctctttagt gtggagaagc 7740  
 gcagaaacgg gctgcgggca atcaatcatc atatgcagag taccgctta aggagtatta 7800  
 atatgtatag atgagttgtc cctgaaaagg gtgcaggctg tgatcatcaa atatcatatg 7860  
 ggatcatatc atatcagact ggcccatcca atatcataga atggatcgct cggcgaagta 7920  
 tctacctag gtacggagac gaaacacgga gtggatgttt acggtgtacg tacctacagc 7980  
 ataatctaag ttacgttata ccatggcatg gcgtggcatg gcgtgtcagt tcaagtcata 8040  
 tcgcttcttc acccctaggt ggatcgggtc gaggactttg aagacatcag aagcttctcc 8100  
 cttgtttcca tcttttgtct gcctcgctgc atctgacatg actccatcta tctatcacg 8160  
 gcgttacagc actttgcctc tgctctgcc agcaattgag tctactgcag actgcgtccg 8220  
 agcaccggg ggtcaggacg gtctcagttg taccagtgtg accagctcag cgccctctcg 8280  
 tccatcagc cgggcacggt tttcttctg tgctcagtcg cagcagtacc gttgtcttct 8340  
 tgaccatcac aagccattt gacggacagt cctgcttggg gttgatgtgg gactaggtcg 8400  
 tgaaagtcct cgtcttccat gcaatcagat tcagcccaa ctttgttagg tcgttctcaa 8460  
 gtcgtgctgg cgttctcagt tcttcatatc agcccgctc ctctgttttg taccgtctac 8520  
 tttgtcgtgc cgggagggtg gtagtgcgcc tgggcacccc atcccatgc ctagggtagg 8580

accgccacgt cacagtcaca caggcctggg gaagacctca agtaccactc ccgtacgaca 8640  
gagtattcga ctgcgtcgta acgaagtagt cgagtcactc ccgtgttggtg ataaatggag 8700  
cgtgatcgca ggtgggggat cgacacaata gcaaatgggtg acaaggtaag cgtatcctgc 8760  
ggagcaagga caatgaagat gttattcacc ctagcacagt atatacacag tcaaagcaca 8820  
tattacattt aggttgccgt catctataga tactaag 8857

<210> 4980  
<211> 5633  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 4980

ggagccgtca atccgctacc ctgcctctgg tcagttggtc tcagcaatgt accctgtgag 60  
tcttgataga ctagttgggtg actagtctct gtagatggaa caaatgggtgc ttgagagggc 120  
acgtatggca gagctccagt catctgcgga acatatactg ggcccgggtt gactagttgt 180  
gaactagatg gtaaataatcc aggtagaggt ggatattgca ctggatttac accaactagt 240  
tgaggactag ttggctgtag tagacgctgc tgcataagcc gagtctctac ctcatatcga 300  
tctagacgtg cttggcgctc acgaagatca agtatatgtt gttcatggct agcctgctga 360  
tcgcgatagt tctgagaagc aatctgggct agggatggag acctagacta gtcagcaact 420  
agtcccggat tagtccttca tgacttaccg ctgtggtgta gaacttcggc ttactcctct 480  
agtataactc ctacccttgg tactagacct ggagcggcgt ggccgtggag atccagagga 540  
tgagaaagat ctagaaggac gtgctcttct aggtagtact ccttctatat tttcctcttc 600  
ctcaatctcc tgattacggc gtcgttttct ttctaatact ggtagtaac cagttaggca 660  
ctagtcaagg ctagacttac ggtccctgat taaattctct gtaattcttg agatctcatc 720  
gtctggccga taggaatggg taatgttata atgtatccgc acagagtact gatgcatatc 780  
tcgtacatca agaaaatatg cactatgaga actagtcaga gtctaaacaa agcctagtct 840  
tgacttagaa acttacctag taactgcctt tagaattggg aggtgcttcc cactaaaagc 900  
atatgatttt tgggtgggttt gttcacctgc attggtatgc atacgggttt gattaaaatg 960  
ctgttcaggg atttgtgagc aagctttatt taatccagca gaaactaccg gatgcagctt 1020  
atgttcagcc caagttgccg cgctggagt tggatcctct atatcaatca gttactagtt 1080

gctaactagt tatggtctgg acttacctag taattgctct aaaatatcca tatactgggc 1140  
tcgggtaggg gcatgtaaaa gactaatcat tgccttaaat aagactgtat gacgttggtt 1200  
ctggccaatt atattctcaa tcccacggat aaaatgaacc cggcagaaga taagaattct 1260  
ttctaactgc cagtctggtt catgatgttc tggatcaagc tctttaggc attttcccaa 1320  
acctaactag ttagcaacta gtgggtaact agtcagtga caaagaaaac ataccgcccc 1380  
tctgtccttc atccatatca acaacgatag tttcaatgcc ggttccatga agatggaaaa 1440  
actgtactgg atggcctgaa agatcatgaa tcatctcaa gaccttttta aatagaaaat 1500  
agtaggcacg gcctgtttgt tggttcataa acgcacgaag gagtgtgata actagaaggt 1560  
gattagtatt tgactagtct gggactagag caggactagt attgtactta ccttttccat 1620  
gatcctctaa aaaaacagca aagataacct cgtaaacct gccctcacgt acgcgtttga 1680  
aggacatgtc aacttcaa at gagcgtaggc tttgaaatag cttggcctga tcttgcaata 1740  
tacaaataat aattgtaata tcaccttcat gatagatttc tcgcacataa tgctagttag 1800  
atgttatcca ctaatccccg actagtcagt aactagatag ggactaatct ttacatacct 1860  
taagatattc attccggctg cattctagtt gtagtgcatt aagatcttgg ccatcaggat 1920  
aaaatgcaag cttctccccg taaataagag cctgtattcg atccatattt gctagagcag 1980  
gatgaaggcc tataattgag tcctcattat atcgcgcgag taagtccctgc atttgaggac 2040  
tgcgataag ttggcctagt ctagttagca actaattgtg gattagaaag ggattagttt 2100  
aatagcagta ctgactaatt cgaagatcag gattctgcat gtcacgaata atataagaga 2160  
tttcatctgc aatttcgcca gggatcttgg ctggaggagg tggaggatga gtatgtattc 2220  
ctgttgatgt aaaaagataa tagggaaagg cctccaggtc taatggaatc ataacattaa 2280  
agatcgcagt acaagggtgc gactctatta gtgatatac atcaccatgc agaaagcctt 2340  
agcaagaatt agttagcaat tagtccaaga ctagccaag actagctgta taactcactg 2400  
cagttacagt acgttctctt tgaccggctt gtgtcaatca ttgcacagta ttttggttca 2460  
ataattcctc tctgtctgaa taattgagct agatatagga tatccgtatc tgtacgaaat 2520  
gcaagagaat caaaaaaatg ttgtttatgg gtttccggtg ttgaattaga gcaacatata 2580  
taggatgaag catggcccat ttgaagctga ctagttagta actagacca gactagtcta 2640  
ccctaaggta cttacagctt cgccaagtac catcttagga gcacacccta cttgttgctg 2700

ccgacaagct tgatgtctct taaatacacg aagcacacca aagaaatgtc tatataaaca 2760  
 tgattagtcc ttgattagtc tctaatacaa taaagactag ttactcacga gattgctttc 2820  
 tgtttttttag gatccatttc tgtctcttca ataagttgtc gtcctgtcg gatatagttc 2880  
 cagtcacctt ctgtaacctt gtaatggtgc atatttctaa ggtaggatg gagataagag 2940  
 catattcgaa cgctgaaca ctggtactgt attcgagtaa cctgcctcg aatatagggg 3000  
 gattgagcat cataacgtc caactggcga gcatggtatt gagtctgtga ctagtcagca 3060  
 actagtcctt tattagttat agaacgaaca tttttaataa gtcttccctt atcttccctg 3120  
 ctcttacctt ggctcgatc aagtgggaca atataggtat agccgttctg atgagattca 3180  
 ggatagtaag gtaacatata gcagtattca agtttagatg tgattagagg acgtgttggg 3240  
 tgattgctaa gaataactct gtcaatctgc tgccagttag caactagtca caaactaggt 3300  
 aagaaaaatg aagtcttgta cctgttctgg aacgtcaata gcacctggaa ttgctggagt 3360  
 tgtagacatg gtggcagcaa gttgcaaact agtcagtgac tagtctgaga ctatttctta 3420  
 ttggcagatt gaagttgagg taaataaagg aggaaaagtc cattactgac aagtgggtatt 3480  
 atatttttagc taactctaag tcgaccttac tcctttgggt tagtgcgctc aaaagaggaa 3540  
 tagccgactt agagttagct cgcgacattt accacgtcac atgtggtctc tcacatgtgg 3600  
 tctcgagagt ccatgacgat gaccatggga gcgttgaatg tggagagcgg acttcggaca 3660  
 gacccgccgg acgagagact cgagacttga cctcgggact ttgccatcgc aagtgggtccc 3720  
 ggattggggt agcgtggatt cttggccagc gactaacatc ctccgcccgc ctctaacagc 3780  
 acgcctctcg taaacggatc cagatctacg aagaaacgac caaagagaga gaacggagaa 3840  
 tatctgtcca agcaaagtat gtggatggct aaactatgtg cgttataatc acttacagaa 3900  
 tgctatgctg actgctcatt ctcccacaag gtgcccattt ttgcaatgag gttatgtgtt 3960  
 tccctactgc tgcttctcga aacaaggag ccattccttc aacgcctgcc ggaagtatcc 4020  
 tcgagacact tctccggtct ccgaaccggt ttggaaatcg aagcagtgga cttgggttagc 4080  
 tccgacatac ccaaaccggt tgtctggggt ggtccgcacc ccgcaccgag ggacgtccga 4140  
 cgtaacgtta agctgcaggg agaactgtc ccccgataat aacgtcagtg tctccaggg 4200  
 gtcgaattcg cctgcactga agtatacgtt cgatggccgg atgttccaac cgccgaactc 4260  
 cgcgttgagg gcatctacct gtggctgcgg agggagaaga ccgttcttta cggcctcggg 4320

gaattgccgg ttacacatga cctgttgaaa ttccagggtc tggatcgcag aaagcaggga 4380  
 gtggactccc tcgttggtgc tctggtaaaa acccactcc gtgcagtact gccagggtcca 4440  
 ggcgatggcg gttggattcg ttgtgggctt gttcagctcg caagacggtg caactgactt 4500  
 atccagaccc ttgcagtttg tctcgtaatt caggttgatt aattgtgtaa atatcggcca 4560  
 ctcagcccaa cgctccgcta ggtgcttata tccgtgtctt aatgccaggc cttcggtttc 4620  
 cgcgggctgc cccgtcaccg gatctgactc gaggtaacga caaaactcgc ccagcgatcc 4680  
 agcaggaccg tccataccat aagcttgga ggcgcgtaa atcaccgcaa gggcgtgtgt 4740  
 gaagtcctca tttgagttct tctcggcgcc ggggccgaag aagagctgtt tgattgacgc 4800  
 cgctgtatcg ttctgagaga gctggttata gatataattca agagccgcgt gaatatttga 4860  
 agcgcagctt cggaatccgt tcgcgaccat tgatcgataa acttgctcat aatagatgct 4920  
 catattgatc tgcgcctgaa ccggcgccga ggcagcgaac gaagcaaata tcgtatctgg 4980  
 atattcattg cgagcaaattg cagcgctgc gcccgatac gagcctccta tcataacca 5040  
 aggagttgag gccgggggtca agtcgtattc ctggagacct ggacgggtga aattctccgc 5100  
 gaaggcaggg atatctgcga gtgcctgtct cgtagtgaga tatatcaa at gctctggcag 5160  
 ggtgttggtta ttgacaggat atggtaacga atctccataa tacctgtttc tgtcaatctc 5220  
 tatectcgtt tcaactttag tggagacgac tgaccgatgc tcccagacaa ttcctatcgc 5280  
 gccgaactct tggagtatag gtggtaaaga cgaagaattc gatctgagat gagcaaacact 5340  
 cggtctcca tcagcctcac ccacatcata caaaaccact ggccctccag gcacatagta 5400  
 cgcacgttc acccagtagc gatttcgtaa ggttccgata gcgggggttat ggtgatcaat 5460  
 agggagctgc agagcattag atcccgata catggtcac aaaaagcgag agtctaccaa 5520  
 aacatattca cctggaccgt tggctctgtg gaccactgcc cggagggact ggggaatcttt 5580  
 cagcaaaaga taaaatccaa cccagatca gcagccagtt gcaagctctt tcc 5633

<210> 4981  
 <211> 5245  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 4981

ctgaaaacgc actatataat gacatgggag aatgggttagg gccgtgataa tgtagagccg 60

ttcgcttttc acacagagac atccgcccgc taaccgtgtg ccgcatactc ataaagatcg 120  
 tacagaaggt aatccgtgag agaagccgga gagaatggat aaacgactaa gaaatgctaa 180  
 tttgcaggtc gaaattattc ggatcatgct gtgagaacat ctgattcatt atcggtttct 240  
 cgacgccgca cggcaatcca gatccatcgc ccatccgcat gggtccttgg tgcgcgtttg 300  
 acagggtccat accggctggg ttgagactgg tacgggaatg gttaagattg tgatggtag 360  
 gggggctcct ggggatgaag gctggtcaca gtctgacgcg gcgagataca ctctgaaccg 420  
 tgacgctggc caaacgagcg gtcaccctcg tcgtcctgtt ctctgctgga agctgaggtc 480  
 ccgctcgaag ccgacgagat ggaatcatgc tttgttgctt gcttgaccat acgccccaa 540  
 tacaggtaga tagcctcatc atcgaccgt gagtgcata ggatctggc tttcagcgaa 600  
 acgagttggc tgtgcagttc cttgatttcg atctcaaggg tggactttct acgcgacacc 660  
 tctgggaacc gtgtccgcaa ttggtccgct tctcgcttct tcttctgacg cgacttgctc 720  
 gcagcggccc ggttgcgctc gaggtgcttg gctcgcttct ctgctctcc ggtctgccag 780  
 cgtagtggcg aggatgactt gttgctgctg atatccgagt gcggcgagaa ccggaactct 840  
 ggatcttgtt ctgcgggggtt aaaagtgtg gaagtagagg agaaggatga gaaagagggc 900  
 attggcccgt aagaattgag gaagcccggc tggttgaagt cgtcggttga gtctttacgg 960  
 gtgtcgcggg gcgctggcg gagggcgcg gtgcggtagc gaggacgcat catgtcctcg 1020  
 tttgcatttg tgctttcgcc ctgcatggc cgtacggaga ccatagcggg ttggtgggg 1080  
 gagaattgca tgtgttcag cggcagctcg tgatgatgcc catcttttc gagtagagag 1140  
 agaggaagaa attctggaga gaattcctgg ccagaaata gtgactcggg ggcgatcgcg 1200  
 gaatccaggc tgggatcggg ctgatagaaa gttgtttggc tggatcatgct gttggttacc 1260  
 aatactgttc ctgctcgatt ttggtagtct tgatatggat gttttagcca gctgggtctt 1320  
 ttgatatggt gcaatagcac tttcccgcc tatcgggaga tggtagggag cgtaaaggtc 1380  
 aattgagagg ttagaatgaa gaaaggctgt attgattggg cgttacagat actaaatagc 1440  
 tggctgaag ttgcaaatgt tggatggatc agcaattgaa tatgaagtta gaaaagaaaa 1500  
 gctttaagggt ggcccgtagc tttgccatgg agctatatac cgatccacga gggcatcgag 1560  
 taagcgggga aaccagccct cagcgcagggt attgacgttt tccaaggaag gatcgcgata 1620  
 accagactca aggaaagttg atcttgcgct accatacaaa atagcagttc tgaaggtcca 1680

tggctgtaag tagatcagtg tcagaatgac gcctgcactc ctgaattcgt gcaggtgtca 1740  
 tgtctcgaaa caatcagagt ggcggaaga gaaatactgc ttgggtcccg ctgcgattgg 1800  
 tacctccact ttactagcac aagctgtact aggaaaggta tatcgtagcc ttgtgaatca 1860  
 gttagtcttt gaacccttcc tgcaccgggt ttggatgggt ccattctgcc gtttctcgcg 1920  
 cagcgggtac ccgggggggt agcgattccg gcgaccagc tagtgtaatt gaggagaatt 1980  
 gtgaagaagt actggtaagt actggtgcag taatctcgta ggatcagtct cgggagaaac 2040  
 gtccggcaaa cgtgctgatg caatatgaca tagagccctg taaggccgtt gatcttggag 2100  
 ttcttgttat catccctcgc tcagctccta cccagcaaa agtccagacc atgtctcaat 2160  
 caagccactg cgaaccttga ccattggaga gtgatgagta aacttgccac ctaccctttt 2220  
 gcctaaaagg ttaatagccc tgcattccgc aatcatggaa aatagatcgt gagtccaggc 2280  
 gcccgacaa caagcagtgc cgttgcccga atgcggcgag agatgatcga tccaagcctt 2340  
 gtaagcgtac actaggcttt agcttcggcc aatgaaaagc agctggaagt ggtatccggc 2400  
 tcatgaggcg ggttttgata ttttatcttg accctgccaa ccggttgcatt caccattcat 2460  
 tgggtggggca ccggcaagtg tccaagttga taacttgttt cctgaccaat cctgcaactc 2520  
 actacatcct ggaattctcg atccttgtgc tgggaagact cggggcgga atgttgtttg 2580  
 ccatcccggt attgtgatct atcaaatcca tggagaccgc acgtattctg cgtgcaaccg 2640  
 ctgggcgacc ctgcctatca gccatcacat tcctgggttt gacgtctttc cgccatggac 2700  
 ctttggaatt tttggtgatt gttcttgaat gcatagatgg cagaaatcga gcttctagga 2760  
 ggcaggtcaa tatcccttgg gaactttggc tgcagaattc cagcacacgg ctgtctggaa 2820  
 tgtgagaaag taggaaaatt tttggagtta tattttaacg ggcgcttacc ttcttcgatt 2880  
 caatatcacc gtgatggaca gaggagcttt taggagtga ttatctccct gcggcacttg 2940  
 atatcaaact atactgctga aatggaaaga gaattgaagg ataatgcggt tgcaagcaag 3000  
 cccgagctct cggtacgctc cacccaacat ttctcttga gatatagtta accttgcgac 3060  
 tcttttgaaa tactcagagc gacgtcattg aagccaaacc ctctgatttt gcctcagaac 3120  
 aatccgcggt gccattaga tgcgaacgca gagaaagcac ctattccaca tgcttgaaaa 3180  
 ctccacgggc ctcgagacag agtctgcaat ctctgggttac cagtcaccag cacaatccag 3240  
 agaataacta ttaccgacag cctggctgtc gcgtgtttcg gcgagtgtcg catctcgatc 3300

atgcgaccag ctcattatgc cgtgacccag agagcccatt gtcgcgaagt cgggggttct 3360  
tgaggaatat gaaatcaaaa attcgcatgc cgtctctatc cttgaaccat caggacgtgt 3420  
cgcaggagat caagccaagg cgtagtagga tggtcgtttt gttttcttct cgggcgtat 3480  
tgtttcgaga gggtcgccgc gattatcct cgaggagata ttgagtttat atgaggtgtg 3540  
cttttggtgg tgctcacaac taccaacact tcttatatcg ctccagcgct tctggcttgc 3600  
atcgaataat caggttgctt ctgacacgca ttgttgctgg atttgacatg cggcatcaca 3660  
aactcgaaat aacaacatcc tctggcaaat caatcagaga tgctgtaagc tagaaataaa 3720  
acctggagta tggctcgcgc ctgctgaga aatccaaacg actcaatagg agtcgggttc 3780  
aagatcctgt gtgggtcatg tacgagagct tcgctgcga gaaagttcct acggccttga 3840  
ttggtggaag agatccaaag agagaaatca gttcattttg ggaaaccagc atccaatgac 3900  
gggcaatctt tgggcgtttt tcgctaattg aaattattgt gtcattagtg tccttagttt 3960  
caataatgtc ttgtcgacgt cgaccacccg ggacttccat tatccgaggc acgtgctcga 4020  
gggcatatca accatggatt tgagtctctc aaccacaaaa gcgttttgcc tcgccgcac 4080  
aacagtcgca atggggagta tcagtgtcaa ctggatttcc cagcgagtca tcgtgactag 4140  
acgttattga gagcaggcca tggttttttg tggactgccg caatcaacct ggccgcttca 4200  
tttcgggatt tgacaccatt aattatcccc ctgcagccc gtaattgcat ggagaggcg 4260  
taacgcgaat cagcagaggc cacaatcctt cgtatgtagc ttggagtagt gctggggtac 4320  
tgattgaagc ccgtaataac gagacgcta tggactcgtg ccaggatgcg cgtcaccggg 4380  
ttcttccgac aaccacagcc accgatataa ccattatcca cattgatcca tcccaaaaag 4440  
gctcaatgcg tcttcgcgcg ctgcaggggc ggggcagggt atcgtcggaa cgggagcaat 4500  
ccggggtagc taatggagat tgaacgagat ctgtagatct agctggatcg atgactcaaa 4560  
gcaaatgctt gctatgatca gggatacggg aaattgcttg ataattcgac ggtccctagt 4620  
cgaggcgca gtcagtaaca cggggcaagc taggaacgat cgcggaagac ccgcaggaac 4680  
aatccaaggt tggttgatca ggtgctcaat gaagggtg ccagaagcac atacgtaggc 4740  
agactcaact tcaaggaacg tgaaacggca tcaggatcga aatgacgtac gcgtagagag 4800  
tccgagggtc gaattttgga tagcctcgtg aagtggaagc gaatcgagtg gtcgccgacc 4860  
ggaagccaag ctgagagaac cccgtgggca gccagaatgc ggggtttgcc tgaacccgcc 4920

tgcagccggg tcttatctaa ctctggtatc ctccacctgt cttctcagcc ttctagctga 4980  
 atccaagctc tgaatccgag aatggaagtt gaatatggag gtagaacatt caacgcctcc 5040  
 cagcctacc gagggctttt agaagatgcg tcgacggatc gtagcccagc tggcgcgcta 5100  
 actacaggcc gaccgtatca atcacaaggc caaacgcgag cagcagaagc ggcatatgga 5160  
 gaacctggaa acacaagtct acaatttata gcaggccgtc cagtcgctca ccgaacaagc 5220  
 tcgcgacctc aacgaaagac tgcgg 5245

<210> 4982  
 <211> 7737  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 4982

tcttcaccaa gggcctgcgc ttcattttct ccacccgatc caaagtgccg tacatcctga 60  
 aggagaacag cgacgagaag ctcttcggcg gctcatacga gttccagcca ggcaaggagg 120  
 agtttatccg caagggcaag gctgggtatg tagtttcta cggcgacatg ctctaccgtt 180  
 cgcttgatgc cgtcgagcgt ctccgcaagg aaggcctcga cgttggtctg atcaacaagc 240  
 ctaccctaaa cgttgtcgac gaggacgca tcaaggagta tggctcgta ccgtttgtgg 300  
 tcgctcgta gtctctcgcg cagaaaacca gtcttgggtc acggctggga tccacctcc 360  
 tggaccgcgg cctgacgcct aagttccgca tgatgggtgc agtcaaggag ggctgtggcg 420  
 gcctgttcga gcagatcaac gcgcaggga tgggtcctga cgatattgtc cgtgtggtta 480  
 aagaggttgc tcaaaagtag atatgcatat gagataaatg atatatgcta gaaatgatct 540  
 tcaaggcaca atacactcga ctacggcggg gaagttacct gttctaagta tcagtgtcgt 600  
 attctataac gaatatccac catcgccatc tctctttttg attctcaaaa ggccaagggg 660  
 tttcatcagg cagcatcaat gtgccgtaat gtcagtacca atgttcagta ctaatgtgcg 720  
 agtagtccac cctatatccc tcaggcaata aataaaatga agctaattgc agaattgttc 780  
 gtctcgcaac ttcttcacta caccctcgat tacccttttg accccttcag tatccagctc 840  
 atcgacccca agcagaatat tatccgtcgt ctcgaaatgc cccccagcat ccttacccca 900  
 accagcacga taaatgaatg gcatcatgga ctcgaaagctg aacacgcctt gcttgatcag 960  
 agccccagct ttctcgactt cctgatctat atccgtttca tttacgggtc agtccttgtc 1020

gccgacgact tcctgtacta gtgagagcag ctgcttgatc gtgacgtttg cctcggcaat 1080  
 tcgcacgact cggttcttag tctctcagg gttggcgagc acactcacga ccgcatgccc 1140  
 gatcgtaggt tgcgtggtcg tgctgtagac cctctcacc ccatcataca acaccgcggt 1200  
 cctcttcctt acatcgatcg gaaacgcgtg tgtcaggccc cagtccagga aagcaccgtt 1260  
 atagatgatc gtatagctga tcttggtctc tgctggctagt cttttgagaa gtcctgtat 1320  
 gttcaccttg cccttgtagg tcggcgagc cgggtttact gggttatcga ggtcgggaacc 1380  
 aaactcagag gggatgaaac gatagacacc ggctgcgact gcggcctgga tcaggttcat 1440  
 ttgtttgtcg ggcgcggtg gggggagtag cgagaccacg gcgtggatgg agtggacggt 1500  
 tagatgggtg gtcagatcgt cgacagagtc ataattgact gggagagttt gaatcctggg 1560  
 cttgggggtt ccggtactat ttccgctgtc actgcaatta ccgttactgt tgactggaac 1620  
 ctggatgggc gctgaggttg acgaaggaga acgaatccca gcgtcgtttt cggccttgag 1680  
 ccgagtgaag atggtgatct tgaagagccc ggaagtgatg agcgcgtgaa gtacggctgg 1740  
 gccaaaggta ccgttgacct gtagtggtta gctagaggat ataggaggga gtacgtctag 1800  
 tggagggata tagatatacc ccagcaacgg caacgttctg gatgttcttg gtcgccatct 1860  
 gggcaggcca cgtaggaaag tacatatata tatatatatt acttctttct tttcacgagt 1920  
 aagacttgac ggttcggcta tagatttaat gcgaggtct caatggagaa tatgtagtat 1980  
 agtcggctca agaggtatct ggagttaagt gagttcaagt tgcaggaaga ccggctgccg 2040  
 aaacgatagt gtcacttat aacataacc tgtgttaca atcgaactga gtctgggagt 2100  
 gtcagaaccg attcgtcatc tgatgccga atcaatgttc tttatcatcc atctcacacc 2160  
 aatagaggaa tatcccggtg gggccaagaa ttaccctgtt tgccaacaaa ccacaataac 2220  
 aaaccttact cgaggccaac tcgggactcg gcaattcagc tagttatagg aagacaacta 2280  
 gcacgcttgc agagaagatg ctggctggga aggggttgaa gacttagcct gggctaaact 2340  
 cgacgtgctc tgggtggtgc tgtaggcttg tataggaggc tgtgggatta aggaacaaga 2400  
 tgtggccgaa cggctagttg cggctctgca ctcaggccca ctatagcgtg aaaccaagac 2460  
 aagttattgg ctggaaatag ctgaattttt gtccaaagt atgctcacga cagaaattta 2520  
 aaatccacgc actcttaggc ctcccaccg cttcctagcc gtttcggctc ccacaatttc 2580  
 tcagtcgttc catcctttga ctctcgatc gattcatcca ctccaagcac tctcatctag 2640

accattgctt atccagacta ttctaaacag actagaattt tcgggtaatc actcttcgtg 2700  
 gtttattgtc caagcccacc gacgcgggct cggagatcta gctcgggaata acggtttcgg 2760  
 acttgggaca agccagtgat gcttatgtgc gaccaccccg gatgcacagc ccagtacagg 2820  
 cgaaaagagc atttgaccgc tcatgcccgc aagcatgcgc cgctggccca aaggctaaca 2880  
 tgtgaggtat gcagcaaggc ctttgaccgg acggactcgc ttcggaggca ccggcagctg 2940  
 catcggaggg agaaggagag cgaggggccc gggtccagga cggccaaggc ctgcgatcgg 3000  
 tgtcatgaat gtaagacaag atgtgatggt gggcagccgt gtggcgtttg tgcgaggaag 3060  
 ggggccaggt gcacgtttga ccggtcgagc aaggctggac ctacgactgg acagagcaca 3120  
 gggaggttgg gcccggaccg gccgcagaag ctgtatggag tatgtgagac tgcaaagaca 3180  
 ctgggcagtc aggccttacag agggcgctcc gccgcccggc aaacgcctgt ctccggcagc 3240  
 gagatccagg atctcctgct ccagcacgag agcaacctcc gggaaagggg gctgctaggg 3300  
 actgcagccg ctgggcccct ggagccaaga agccagaata aagatcttga catcgaccgc 3360  
 tacgtcggtg tatacttttc ccacttcac tatcagtggc cgctcatcca ccgcgccgcc 3420  
 tttggacgga gtaatgacgc ctccaatctt actgttgga atcgtgatga tcgggctttg 3480  
 gcttacgggt gaggccgctg ctccggaccg agcagagaag atgcatgaga agttcctggc 3540  
 gctgtggaaa accgcatagt aggccttcctc ttccttgtga taatacttgc taatggcctc 3600  
 actaggatgc ctggaagctg gacggcgaat tcaccgacaa gacctggcca atgacgacct 3660  
 accaaaccat tgtcctcaat gtcacttttg ctataattcg ggacgtcccg cagtgcctcg 3720  
 tctcccgtt ccggctcctg ctgcatgccg tcacaaccac ctgcctggcc ggccggcctc 3780  
 ttacctacgc caaaatgcag gccttggttg aaccaacgga ctccctggtc tatagctgga 3840  
 catacatgga agaggtaaaa cgccttgccc tggccatatt taagttgaac caccatctca 3900  
 acacgggcat gctgcgtccc tcggacctgc aatttcccct cccggatagt ggatacttgt 3960  
 gggatgcgcc ggagacgaag gacttctatt gccggtacca tgtccagcta gattcgcgga 4020  
 ctcgtgtaga cgatggaccg ttgatatgtg atattgtgag ggatgtccaa gatgggaagc 4080  
 ggggactcgg gatgctcttc caggcagata gttggctagg gttcgcgggt tcgcaggcga 4140  
 tactatccga gaaaacgcca ccatctgtag actgcatgca aaactgactt tctgggttct 4200  
 cgtgtcttcg gcgtggatgg gtgaaggctt actgtcgtat cccaccggga taaaattaat 4260

aatccacgta ttcagcaatg cgcccaatga gtggggctcg gcaattcctc ttatactctg 4320  
tcagcgacta gaatgttctg aattgtcact ctgtcctggtt gggattctag agaccgcacc 4380  
atactatgcc tggcagccca aatcgccctt ctgaggctctt ggccagggcc ttgtcgcatt 4440  
tgactaagga taccgctggtt ggtagacaag ctcatgttca ttgccatcac catcactacc 4500  
aggagcatca ggatcacgaa tggttcctgc aaatagatac atggggccag ctcgaacttc 4560  
tccgccagct cctgtgtcga cggagcccag agattgaact cactgaaggc cagctgcaag 4620  
atatcgatat agtcctctcg taaaaacaca gccacgcact atttaccctt tcagaatctc 4680  
tccatccgcg actcgtgggtc aacaaatcaa ggatatccgt gtggaagggc gatattacca 4740  
ccctatctaa tgtgacggct attgtcaatg cgcgaaactc ggcgctgctc ggggtgcttcc 4800  
agccgtcgca ccggtgtatt gataatgtta tccattctgc tgctgggcct cgtctaagac 4860  
aggcatgttt cgagttgatg atggagcagg gccatgatga accggtggga tgcgcaaaag 4920  
taacacctgg gttcaagttg caagctccgt atgtcatcca tacggttggg cctgaccttg 4980  
gacacggaca attgcccgat cgcaggcaca gggagcagct gcgtgactgc tatgtatctt 5040  
gccttgaggc catggaaact gtccctgcgc taccagacgg gcgcaaggtc atcgcgttct 5100  
gctgcatctc gacgggcctt ttcgcgttcc cgtctgatat agcggctcag atcgccattg 5160  
acactgtgtt aagttggtgt ttggagcacc caacgacaac cgtcactgac attatcttcg 5220  
acactttcct tcaacgggac tttaatctat acaacgacaa gatctctacc cttgtttcca 5280  
gtagcaacga ctgcgtgcat atagcgccca ttctccaca gccagcacca gttgcctccc 5340  
catcaataaa gacggcccgc tcctggctcg agcaagcaga ctacctcacc atcagtgtcg 5400  
gtgccggtct ctccgccgca acagggtctg actatacttc tacggacttg ttcgccaaact 5460  
attttcccgc attcctgccg ctccgtctga ggagattgta cgacgtcttc ggcttcagcg 5520  
ggtggaaatc ccccgctcaa aaatgggggt actattttca tcatttgaat atggttaaga 5580  
cgtggccaaa gtccccatta tacgcttctt tgctagagat aacatcacgg tttggccctc 5640  
ggtgtttcgt tcggacttcg aacgcggatg gattatttct tgccaatggc ttccatccgt 5700  
ctcgcatctc caccgcccag gggcaatatg cctatttgca atgttttgcc aaatgtaaac 5760  
gcgaagctgt ctttcgctcc gcgccgttct tgactgcggc ccttccattt ttggattcgc 5820  
agacgcaact actcacggat gagtccaaga tcccaggtg cagggtactgc agtggggagc 5880

ttacactctg tgtccgcggc ggagattact tcaatgactc tccctttcaa ggtcaagagc 5940  
 gggagtatgc ccgctttttg gagcacgtat cctctgaaat agagcaaggg aggagtgcag 6000  
 tcatactcga attaggcggtt ggaatgaaca ctccctctgt actacgggtg cacaacgaag 6060  
 agctagtcga agaatcgaat ggcgggtcaa ggctaattag agcaggggtt gatgcggcag 6120  
 ggtgtgtgcc ttggaggcta gcggaggagg gcgttgacgt aggagttgcc ggggaattga 6180  
 atgcccgttg atgacctact gagaggacct gttacatgca actgaattca gaatgcagtc 6240  
 ttctgacacc gggagccgga tgtcagctga aggagttccg acagaagaag tatgagtcac 6300  
 taaaccaact atcttccaac cactctctgc gaagtgccac cgtgtgggct tactcgacct 6360  
 tgggtctaaat ggttacgtgt ggggactaga tgggcttgta cgcctggacc ccttcatacg 6420  
 cttgcgcagt acccgctacg atgaagggtt gtttctatta tagaaaacga caatgcacag 6480  
 gaataagcag cacctcaatt aggcctaatt atacaggccg aaatatattg tgcaaacct 6540  
 tgaggcacia gggggctcca tgttacagag gttctatctc gtttaagaga ctctcagtca 6600  
 ggcaactacc cgtataagta tatcaatata ctaaaccgtt ccgcgccccg acgaaatcca 6660  
 ccacatcgaa aaagctcttc ttgtagaccg gctctaaggt agtgcgggtg acaacttga 6720  
 tcccaaattg ggatgcatag tccccaaact ccagttatc ggcgaagctc cacgcaaagg 6780  
 cacctgctac gtgcacgcgc tcttcccaga ttgctttgag tgtttcagat aggtaagaga 6840  
 ggtagtattg gctccgtgga gagtcaaaga ctgatcttg tagttcacgt tcggattctg 6900  
 cgtacactgg gaacccgaat tcgccgatca agacgggagt ccggaagta ttccagaggt 6960  
 agtaaagata ggagcggaga tatttcggcg tgatgtacac gtagctttgg gaacgatagc 7020  
 cgatatccca gccatagatg tttgtcgtct cctgcgtaac gcagtagggg tagagactat 7080  
 tggtgctcat gttctgtttt gcgcagggtt cgatgccacc aggcggagcg gagacgatgt 7140  
 tgcatgttag gggcaatac ctaagatgtc agttgtgttg gccatatagt cgagctgggc 7200  
 ttcggtgagc ttctgtgcgc cggggagggt gttgagaagt gtctctgggt attgctcgcc 7260  
 caaacagaga gggttgccga aggccccaaag ctgcatctcg ttgaagcggt tggcggcatt 7320  
 gatgtcggtc tggttttctg ggttcttggg gacgcaaag ttgttgttca gtttgaagcc 7380  
 aaccttgcca gtgcgcgcga gctcttcgtg gtagtagtgg tacagttccg cgtgtgcctg 7440  
 aacgacgtta tggataccgg tgaagttgaa ggagtacaaa aggggttcgt taaacgtcac 7500

ccagaccggg actcgggtctg catagtgcgt gaagaggatc ttgccatagt tgacgaaggt 7560  
 ttgacgaatt cgggatgcca gtaccccccg ttactcgcg ccaacatccgg ggtggccgat 7620  
 acgctggacc cctccaggaa gtagaggggc gagtcgaagt ggatcatggt caccactggc 7680  
 agcatgccta cctcgagaat gtaagtgatc agatcgtcgt attgctgtat tggctgc 7737

<210> 4983  
 <211> 4975  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 4983

attcgcgact tcatggctca caatcctgtg gatagggatc gtaggtcaga cggaagccga 60  
 ttcacgagcc cgctgagaga ttcatcaggc gataagagca tttccgagat gagagcatcg 120  
 atctggcgaa caaaaaggcg taaatgttca cggctgaaga tccgactatc gcttgatgcc 180  
 tccagggtca tgtttccgct tggcgactgg aaaacattca tggccatggg atgctcaaca 240  
 tgcaggccaa tctggtcttc aagctcatgc cagagaccag gcaggctcgc aatTTTTctg 300  
 tcctttgatt cgtcaagcgc gtggaaattg aatactgcag ggtacaacgg ctctcctctc 360  
 tgccgcttaa gggccttcg aatatctctc gcatgaacat gtcgatgctt ccacgattgc 420  
 aaggagagcc ggtgctgttc tgccaggatc ttctcactg tcgtatcccc ttctactcgg 480  
 aacggaaccg gaacaacaga tataaaagga ccgactgcgc tttccaagga cggatcaaag 540  
 acgcggtctg ataacgtctc cgcaaacc gtccccgaca ggcccagata agacaggctg 600  
 acgaacgccc atgccgcctt aatgatcgac gcaacagatt tcagccctag atctgctgcg 660  
 actttctcta aaactgggaa ggacgaggtt attgacatcg cctcggatat cagtttgtat 720  
 tctggcgccg cgctggtga gacccttta cctgtgagat cgggccagac ggggacgtcg 780  
 agggcggcgt acggcttgag ctccaaggac cagaaatcaa cagcttcggc gtatttgctt 840  
 ggagttggga gcacaagcgc gagggcgggg gtcagctggg tgccaagagg cggttttag 900  
 gtatatgcgg cgcgacatc gtccatcaag aacttgaggg aaggctcgtc atggattgag 960  
 tgggtggagt tcaagaccat gactcgttcg gtgccttctt ccagtattgt gactgcccc 1020  
 ggaggatggc agaagtagtt cttctggtgc gccgtcatga tatccccgac tcggttcttt 1080  
 agcacccaac tccactcttc cttctgtag gtatgagcct cccaatccac cgccggaagc 1140

ttatacacia cctgcaaaat agaaaatccc gaatccctag cctgtttctt attctttgca 1200  
 aaccgtctgt gcgacaggta taaaccccggt ccggagcggtc tcagtcttct ggcacacggc 1260  
 ataccaagct tgtcgtatgc ggggaatgtc gacagaccta tcaagtctga agaaatgatt 1320  
 gctccagtac atgtcgtatg taccattgt ctcagtaagc aagctctcct ggatagctgt 1380  
 ggcgcggatc gttgtaaacg cgtccttctc agggatcttt gctgctgctg cgacgagggg 1440  
 atgccatata ttgttgaagg agacgatata gaacttgctg ttgtgagggc tagctgagtt 1500  
 tgcagatgaa ctgaatgaag tagactgggc taatctgaca agatcctgga tagtggtgca 1560  
 ggcaggaca tccataacag aaagaccaa cccggcctcc ttgagcctaa atgcaagacg 1620  
 cgtggcacag agtgagtcaa cacctagact gcgtaatcta ttgctctttg tgatagtcga 1680  
 gctctcaaca tgcaccagcg ctgccactgt ctgatgatc tgagtggccg tggcagcatc 1740  
 atcctcatct gcctctccgg ggcctcagg gttaacgttg ttctccact tgtcaatata 1800  
 aaccgtgctg tacgcagcct gtaaagcgcg tcgatcgacc ttgagatg gcgttttttg 1860  
 tatcttcttg acaataagat acacagaggg aatcatgttc tctggcagga cattgcgcgc 1920  
 ctgaaggctt gctgcacggg caatatctct accagtgtcg tcaagcacca acaaaccttc 1980  
 atccgcatca ccagcagcct tcggggcgca caagaacgca acaacaactc tgactggcct 2040  
 gtctttcctg ctaagtatca tagtctccac gctctcgacg agttcatgac accctctcag 2100  
 cgcaaaactt atctccgaca actcaatcct aatgccacct agtttcacaa ggtcatcaac 2160  
 acgctgatg tactccagac tccatcaga tagcatgcgg acaaggtcac ccgtatagta 2220  
 aagccgctgc ccagcgtcct cattccagat atacttcgtg tccgttacgt cctttaaatt 2280  
 caagtattct ggtgaaagct gagggccacc taatgcaagc tctccaatgg cattcttcat 2340  
 gagcacgcgc ttatcttttg acatcacgaa gaccgaaaca ctgctcattg gccacccgat 2400  
 attcgcactt ttgacggatc tatgttcatt gccgaattcg cggatcgtae tgacgaccgt 2460  
 cgctccgcg gggccgtagg tattgaacgc cctcatgtct gtcccccaat catccgcaac 2520  
 actctgtgtc aatttttcgc cgatcattgt tacgacttta agcgttttgc atgatttct 2580  
 cgcgacacca gccgcaaagg caggcgtgag atgggcgtgc gttgccttgg tgatatttgc 2640  
 aagtttaggg aaagattcga gcattatctc cctcgtgcc aataaagcg cgctcctaa 2700  
 gcccgaagtg tagaagaggt cttggatgga gacatcgaag gttggttgcg agaattggag 2760

gcagcgaatg ggactgccgt cttcgttacc cgggatatcg gtctggaggg agcgcattgct 2820  
agagacggcg gctgagtgcg taatgggtac gcccttggga gcgccagttg tgccactcgt 2880  
ccagattagg taggctgtat ttctaggggt tgctcgggtg ctgcttgact gtgggggtatt 2940  
gtcgcctcag acattctgaa tgaacttgct aacatcaata actctgactc cagctggaac 3000  
agcattctga ggttgtggcg tatcgagacc agaaaccaga aggataccgg cactagtctc 3060  
cgcaatgaga tcatggcgac gctgtgctgg ggaaagtga tcaatgggac accaggcgcc 3120  
tcctgccttg aggataccta ggatcgcaac atacaagggt ggactcttct cgatgcaaat 3180  
cggaacagaa gcattctctca gatcaccaca aacctggagc agatgttccg caagagcttc 3240  
agccatagcg ttgagttggg catatgtcca agtgatgttt cctggatgat catcattatc 3300  
aaggctcctg ttaaatacta gagctgggtc atttgatgc gagagggcat ggtcttcgaa 3360  
ctgtgattgt aggagtgtc cttcgtgac ttctggagct gtaattggac tggggttcgc 3420  
tttcgatttc agagctaagc tggttgaag aggagcatct tcgaaactcg agtccgggtg 3480  
gttgaggatg tagctgacga tatcatccat ttgtttcagc atgatttgag ctccggtaga 3540  
gtcgagtctc gtgtcgaaac tagcccgag cgtcaacgtc ggtccggat tggggaccac 3600  
ctcgatcatc acagagaaat catttgccat agcgggatgt tggacagAAC tccaggtttg 3660  
agaaggtttc atatcagtgt caaagtcctg gtatgcgagg actgtgtcat agggAACctt 3720  
gccatttaag gtcacagatc ctagctgagg ctggaggtgt gagagcgctt ttgcatttga 3780  
agacgacaga tagtggaaca ctgattggtt tgtcaaggat ccggaaccct tcaattgctg 3840  
gacggaaatt ctggaaggcg ttatcgtaaa ggtcggacca atgcagtctt tcgaatcggg 3900  
atcaagtcgt ccagacatca cacttccaa aactacgtcc tgatccggcg tagctgtgta 3960  
gctgagaact accgcacccc atgctgcctg cagcacagag agtggtgtag agccaatgct 4020  
ttttgagagt tttttgagg ctccgtaact gagttgagag gtgacctcag cacagccagt 4080  
gcttttctgg gccggcgctc gatgcggagt gagagatgga aaggggagga gagagtaacc 4140  
ttgtagatat tccctccaga atttgatgt ggaagtgtga tctgcctgga agtggtgttt 4200  
gacgatgtgg gttagtgagg ttcgctgcgg tagtgtgttt ccggagtacg ctgacgagac 4260  
atcttgcaag aggagctgta gagagccgcc gtcgaagatt ccgtggaaca tgctgaggat 4320  
catgatggac ttcgtcgatg actgcaccaa agacagcttc cagggaggtc tcctcaatgt 4380

gattgattct tcagcactcc gaagagcgtg gtcgataatg tcgttttctg cggagcactc 4440  
gttagggctt gtgtaaactg tccagtcctt ggatgagacg ccctcagccg tcaagatgca 4500  
ctgtgcaaac ggggccagct catcgtcgac catacagaag accgtccgga aagagtcata 4560  
gtttgagata acatcgaacc aggccttctt gagcttctca atgttggtag ggggctcaag 4620  
tggaaggaca gtatgataaa tgtatgttgg tttctcatag gactgttccg cagagctacg 4680  
cagaaaacta gtcaacatcc cggattgagt agcagtggta ggaaggactt catgtatcgt 4740  
gtccgcgggc acgtcaaggg attctgcgca aaacatgcga tatcgccggc cgaatgactg 4800  
cagtcttaac tgcaagtcgt ttgttatact gcccttctga agtatcccat taggctcgcc 4860  
attttgattc gtcagcatgc tctggacgag agagacaagc cgctggcatg tatgtgtttg 4920  
cagcacttcg ccgacggaca gcccatggac ccattgtct ctcagcttct gtaga 4975

<210> 4984  
<211> 3045  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 4984

cttggtcggt acctttgcac gggggagcac gatgaaactg gcggcccctc tcgtcgaaat 60  
gttcttatat ggccacttat cggaatcat tgggggggtt acaatccttg gtcggcgagg 120  
gacgtttgac gtcgtctgga ggtgcccaaa tatgcagaga gcctacgaag tacgtaggcc 180  
agatatttcg ccccgccccg tcccgttga cgtaagcggg tccaacatta caaagtcatt 240  
tgtgtgaaag atgaaatcat acacccaaag acctgttga gtatgtttgg aggggtcagg 300  
tgaactgtac gactccgctc tcaacagcat ctccgggtata cactgggctt ggcagtagca 360  
taaaccatga atacatcaat tacatcaatt acctcagtcg acgtcaatta cgtcagctac 420  
tacttgtttc attgttgctc tatttagggt gtcaattgtc atcataaaag aagcgattat 480  
cgacgctaag atggatcatat gtgcagtcgt acaattataa actgataccc attatcctgc 540  
ttctagagtg tctttcgcgg tctgtaaaga gaatagtcaa aatatgaaaa ataatagggt 600  
aaagaattga ttaatcaaaa taaaattgaa ttgaataaaa taagactgtt gataagagca 660  
tgcattaagg tagaatcaat ccaaggcttt ggaatgatgg atctacatag gtcgacggct 720  
atcatgtaca aaaagggtat cgtttgggtg aatcaataa gacggcgttt aataaccacg 780

tttgaccaat cacagagctg gtatatagca agcattgtct ggccgatgat acatccagtg 840  
 cgagatgaag ctgcacgagc aagcagtatt atggccagga gtgccgtgag gtgacgacaa 900  
 gagtagttga taggggaata tggcagtaga ggcttctgaa ggattagacc agatgtagag 960  
 tagatcgagt gtcggtaaag agaagtattg gaaaatagag cacttcctga cgtcgcagcg 1020  
 gatcgcacct atcagagacg acaacggatt tcttagaaga gcagtagatg ctgccaaagta 1080  
 acttgtgaaa aactaccgcc ggctactttt gccaaactgt tcagataatt taatcttggt 1140  
 gaaagagaag aaattatact ctcttatccg agaccaactt ttccgggtat cgtagcccat 1200  
 gcatgcacac ccaaccgaaa acctcaaacg ccagacagga gaaggtctaa acctcatctt 1260  
 ggtgcaaaga aaaggagaag atttatagta cagtaatcca caaccaccaa cacaactgat 1320  
 acccagatag tcagtccagc aaagagcaga aaagcaaaga aactccgaaa aacaccatca 1380  
 cccataagat gcgagattta acagtatgca tttgtcttct tctctcgagt cagggcggcg 1440  
 acctccttgc gtagccgctc attcatttcc tgcagctcct gcatgtacgt gattgcattg 1500  
 ctcagaatct cggacttttt cagcgacgcc gaggacttga cgccattgct acttgaattt 1560  
 gtcgacgaga cggccttcga cacaccggac gtcttgacag acatggcctt ttccagagca 1620  
 acgaacttgg cgttcatgtt tgtgcggtag cgcttctcga tgatgttgtg agcggcgcg 1680  
 ttagcggcgt tgccggccacg ggccggtgtt tcataccgt ttgtcgcgtt tgccggtcgg 1740  
 gactgcggcc ggtcgttgtt gtttgtcgag gtggtggaga gggctgctgt ggtgagagtc 1800  
 gggaacagga gaaggtcctc gaaaggctct gaatgagtgc tcgatgcgcc tctgacttgt 1860  
 cggggcacag gacggggatc tgcagtgaat acgaggtagg gttacagcca tcgcatcctt 1920  
 agcgggccgt ttatgactct gtaagattta aagccggggg ccaggtcgga ccagatcggt 1980  
 tccgatgtgg ttaggatgaa gttgaccag agtctaggta gggccattga accttggaa 2040  
 aagtattgag ctgacttggc aagggaatgt gacgaagcca ctgtctgatg agactgcgat 2100  
 tgctcttcaa aagaactgga cagatgaagc tggtagtca cactcttta ttacgggacg 2160  
 gtctactgac gtaacataga ctggcacaca atccctgtca agaagaccgt cctcgatata 2220  
 gtcgcccagt tatcgtccaa ggtcttcta ggtgacaaa tctgccgcaa ccccgagtgg 2280  
 ctccggatca cggtagccta tacggtggac tcgtttctag ccgcacaagc attgcgcagt 2340  
 tggccaacct tcatgcgacg cctcgtcgcc ccatttatcc ctggtgtcca gaagatccgc 2400

gCGGagctcg aggaggcccg tcgtatcatt ctccctgtat tggaaaagcg caaggcagaa 2460  
aaacaaactg ctattgcggc tggcaagacc ccagctcggg acaacgacgc gatggaatgg 2520  
atggaacagt gtgctaaggg gcgtccgtat gatgcggcgg tgtcgcagct ttctctctca 2580  
ctgggCGcta tccataccac atccgacatg ctgaccCagg ttctctacga catttgCGga 2640  
cacagcgatc tggtcgatga gctcaggcag gaggttctca ccgtcattgc ggcggaagga 2700  
tggcagaaga cgactctgta caaactgaag ttgatggata gcgttctcaa ggaaagccaa 2760  
agggtaaaac ccatcgggat cggtagctac gctcctcaca caggtacaac gtctgctaac 2820  
gagtcagcaa cgatgcaccg cttggctgaa aaaacagtca agctttctga cggcactgtt 2880  
atccccaaaa acgccaacct gatcgtttcc tcgcagcggg tgtgggatga gagcatctac 2940  
ccctccccag acaaattcga cccttaccgc ttccttagat tgcgagagac gcctggtcac 3000  
gagacttcgg ccagttcgt ctcaccgtcg ccagatcata tgggc 3045

<210> 4985  
<211> 3475  
<212> DNA  
<213> Aspergillus nidulans  
<400> 4985

tttaaggatg ccaaaactaa tggggtagat atctgaggcc caagaaatta agtataagaa 60  
aaagagaagg gaggggtgtc tgcaatttca ggcatatag gcggaatagg ggaaaaagaa 120  
accctgttt tgctaaaagg ccattacatt gttatcgga aggaatccaa agtttccctc 180  
agagcgattt tgctaaaata accaatgaga aaaagggcaa agcatacttt tctttaagaa 240  
catttgcgct aagttaggtc aggcgaatcc caaaccCGg accgtcgaat gccagtaaatt 300  
actgtttaag cagcataaca acattggtat tggaaagacgc ggcctatcag gactccaaac 360  
tcattcgacg aacttaggat gttccttcga agacgcggtc ataccttta aggtaggttc 420  
tcatttgacc ggatgtgcag gatgccaat gaatctggat ctcaacccta atcattattc 480  
catttgttga ctactaacag agggctaacc tcataacagc acaagagcgt atcagtggct 540  
acatgctgag ccattccac cgtaccaatg ccgcagttgg gaatgccagt gggtgaggtg 600  
cacagattga tcagggccct acgtatcagt cgatttacca aaagaagcgt atgctatctt 660  
taccagccaa gcgaccctgc acaccattta aaaacttaag cttgaggttg ctagcttgta 720

cgcgaaatagc aagacgggac agaacacggc cgttgcggaag cttgccgtcc agtatgatat 780  
 agagggtttt cttcatgagt gtttaaagtt atggtcaata ctgggcactt agctgacgga 840  
 gtttcttctt catggagggg aaagaatggc taatagttat cctagagtat gatctgaaca 900  
 ggctgtgtcc catggacttc tggattcgtt tgccaacccg catttcgaag aggctagtga 960  
 gcgcgagggg tgtggtcagg atgcgcggaa tatgatgtaa aagccattgt gcaaaagggg 1020  
 aataagaggt cctcttcgca ttacggggcg aagcagtggc tttggagtat atattgtatt 1080  
 tttttggggg gggaaaaccc tggctgtctt ttggttggct agtaccaaga aataaattac 1140  
 ttaaagcggg agagcacgtc acctgattaa ctttgctggc acccctcctt aaagcagcaa 1200  
 catctggatt aggcaggaag ctacctatct agttaagcca ccctcaagct aggcctttat 1260  
 ccctgaata tatttctcca gtacgcagta ccactttgtt tattagcatc tcaaacctct 1320  
 ctttgttctt gctgttactt aattttcaac cgctctctta cctcgagtaa ctcttttcta 1380  
 gcctccacaa ttgcgtacct ctgccccctc tcccaccatg cttcaggtag cctgctgaga 1440  
 atataacagc gtggcctcgg gtgtgagcac gaaggctata atcctggtaa ggccatcttc 1500  
 agtttcccat cgttttcacc ttttgagaaa actttgttct gtaactaatc aattgcttgc 1560  
 aggttgggtg tccctccaga ggaacccgct tcaggccctt gtctctcgat gtccctaagg 1620  
 tcggtttctg cacaaatcga ggctttccgt gtcgaactaa tataactgac gacgtcaatg 1680  
 tctatcacag cccgttttca agtcgcacgc caccgatat gcaccactgc ctcaaggccc 1740  
 ttgcgaaagt tcccgagctt catgaagtta tacttattgg ctactacgat gagactgtct 1800  
 tccgcgactt catcaaggac tccgcgaagg agtttcctca gttccgaatt tcatatcttc 1860  
 gagaatacac agcgttagga actgctggcg gtctatacca tttccgcgac cctatcctca 1920  
 agggcaagcc ggagcgcac ttcgtgctga atgcggatgt ctgctgctca ttcccgttg 1980  
 gcgagatgct aagactgttt gaggagaagg atgctgaggc tgtcattttg ggaacacgag 2040  
 tccacaacga cgcagctacg aattttggct gtatcgtgtc ggactcacac actaagcgag 2100  
 ttcttcacta cgtcgagaag ccggaatcac atatctctaa cctcatcaac tgcggagtat 2160  
 atctattcgc gacagaatgc atcttcccct ccattcgtag cacgatcaaa cgacgaacaa 2220  
 ctgcacctcg cctgctctcc tacccttctt ctgacaacct ggaagcgtca tttgtcgccg 2280  
 acgatgattc agaacgaacc gaggtcctgc gtctcgagca ggatatactc tccgacctcg 2340

ctgacagcaa ccgtttcttt gttcagcaga cgaaagattt ctggcgctcag atcaagaccg 2400  
 ctggatccac cggtccggcc aatgctctct acctccagaa agcattccag gcacagtctg 2460  
 aggagctcgc tgctccttcc gctaccatcg ttctccccgt ctacatccat cccaccgcaa 2520  
 gtgtagatcc aacggcaaag ctcggtccta acgtatcaat tgggcctcgc gctatcgtgg 2580  
 gtgctggcgc gcgtgtcaag gactcaattg ttctggaaga tgcggaaatt aagcacgatg 2640  
 catgcgtcat gcattcgata attggctgga gcagccgagt cggcgcttgg gctcgtgtgg 2700  
 aggggacacc aatccccatg ggaagtcact ccactagcat cattaagaat ggtggcaagg 2760  
 ggcagagcat tacgatcctt gaaaggagtg cagcgtgggt gaccaaatac cggtgcagaa 2820  
 actgtgtctg gttgccgatt aagagctcaa ccggggtagt tatttctgac gcattatacg 2880  
 ttggtatagc tggcattaaa gttggatggg ggcacgaggt catcatgtaa ggcatttagc 2940  
 gtattcactt tcgattatat tatattaagt taatactacc gatcttctga tgaaccgata 3000  
 gcattaccca atacacagta tctgatacgt cgctccaggt cttgtaagaa acttgatgaa 3060  
 atggcacgta aactcaacca gcacactaac aagcaaggct gatacttctt tgcgtagcct 3120  
 cgaaccaaac aagtctatga catagatagc cagcaaaaaca aaacgccagt gccgacgggc 3180  
 aaagctgaaa cccacagcaa aaacagtatc ataacacttc cgtaaagttc tctcaatcat 3240  
 ggggtggccag cttgactcct cacctatagg ctgtggggtc atagctcgtc tgctgtccat 3300  
 acccgtagcg gttatcatag gcactcatcc tcatcccga gtgcgggtgc tgggggtccgt 3360  
 ccgaatacct ctccaacacc ggattactag catacggagg tggctgatgc aacgggtctac 3420  
 tctccccaat atccatttct tccgagcggc cctcaaagt gcccgaggca tcgta 3475

<210> 4986  
 <211> 5047  
 <212> DNA  
 <213> Aspergillus nidulans  
 <400> 4986

tatttctcca actagaatat tcggtaagtt tctctgatc atctactacc tcgcggtaga 60  
 ctactgcacg gcgttgagat ctatttatgt acatgctagg gcttttctga gccaccagc 120  
 agaaggaact ataaacgttt aaccgagccg ttaccgcatg gtgccgaact gtgtgcattg 180  
 gcgattccca agcagaattc attacatgga atagccctga actgtgtata atcgagctcg 240

caggctaaaa tacatcattt tgcattgtatg attaggtaaa aagcctataa tttggggaaa 300  
tggggatgat tttccgggtg tgatccccctt ttgttgctcg gccagtgagg ggatttcgcg 360  
ggcgtttccg ccgatctcta atgagattat gtggaaagca agacaaaaca aagtttgatg 420  
ctggctgctt gaattcttcc gggcagtgtc gtatcccttg gaactagacg aacaacgtca 480  
taggcctaa ccccgcaatt gcagggaaac ccgagcccta acttctgcac cggacatact 540  
acaccgggct cccgggtatc tattcaccga gaccgggggt ccctctatgc ggggtacgcg 600  
aagatagttc caattcagcc tgaacagtac acagtacaca ggaaacctgt agatcccttt 660  
ccccgccgca tatagcggtc tgcctgcaat acttccacca accaccatca tggagatcat 720  
ccgtatcacc gagagctgca gggcaaacia gcttccagcc cactttgctc ttgtatttg 780  
aataaccgag gaatatgggt cagtcctata agatctgcgc gtatcctatc gaaactcggt 840  
ctcaatccgc tcaactcagtt agattcccgt caaaaatgaa gtccactctt ggctccctag 900  
tgcttgcgct ggtcaccgca gcgtccagtg caccgacaac gctgcaccac caaggcctcc 960  
ttcgcagggt ctctctgctt gtcgtcttcg gcgatagcta caccgacaac ggggtctact 1020  
cctacatccc gcctgtcgcg ccgcagtcga acgagactag caccggcggc cgctctggc 1080  
ccagctatgt gcagcaatat agcggcggtt acctatacga ctatgcggtc tcggggggccg 1140  
tctgtgactc cgtgattgcc aacaccgagc gcagcgggat taagcaggac cagatgtcca 1200  
gctttcttac ggataacagc tacagagata atcgaccggg gtctcgcgcg ctgatcaatc 1260  
cctccgacga gaccgtctac gcaatttgga tcggaaccaa tgatctagga tacggcgggt 1320  
tcctgaccga agtacagccg gacgggatgc cgctgacgta ttttacggac tgcgtgtatg 1380  
agcagctcga ccggttacat gccgtcgcg cagcgcggtt cgtgctgatg aatatcgcg 1440  
ccttgatct ctgtccagag tatgcgcggc ctgagaacgg cggagacgag accggacagt 1500  
tctggtcgaa caaggccggg tatgatacga acgtcaccgg gtcaagtgag aagatgaggc 1560  
agtacttcac tatggtgaac gaggtctttg agtaccggac gccgtttgag ctgcttttg 1620  
cgaacaggta tccgggaagc cggttcgcg tttacgacgt gcatgccttg gttgggtcac 1680  
ctcttccttt cttacctatt cccaggata tggatggaag agcatagcta atattgagtt 1740  
caaaactgca gatgactgat atctgggaga acccaggaaa ttacctcaac gggactgtgc 1800  
catataatgt cagcagctcg gtctaccagt gcggcgatgc gtgttcggcc agcaggtcc 1860

gcgacagcta tatgtggtat gacgagctgc atccatcgga gcagacggat cgcattgttg 1920  
 cgcgggagtt tgtgaacgtt gtccgagggg agaccaagtg ggctagggtc tggaggagct 1980  
 agaacgatca catatagctt actcgtctaa tatggctcga cgcaacatct tctatcttgc 2040  
 cttagagcac gacggactgt aggtcagaga acggagtggg caagacgcac ggagttaggg 2100  
 ttgcagtatg atcagaagcc cttacgatgt ggacaggaaa tgaccaaga catttccaga 2160  
 gcacgcggat agagtgaaag atttaatgta taccaaatta caagagctat ttttgccgac 2220  
 gaaacggata aatggaccgt actggcgggc gatacgacat atatctttgc gtatcaacga 2280  
 tcgctgcccc agagagacgg ccgctgtact ggcacaaaca gcttcaacac caaaagctct 2340  
 tacaatcttt atagcacatg tctatgtacc aaagaagcat aggtgcttgc tgatataaaa 2400  
 actcatatac tgcagacagc ggagcgattc atgagctcgg ctcgagtggg gctgaatata 2460  
 attttgactc catcgaccga attccacact ggtgggtacc atgaacgaga ttggtctccc 2520  
 ctctttaat ccacctccct gtctctgtaa gcattcttc atctctcca cttgagaagc 2580  
 catggttaagc aacacgatga ctctccaac aacctcccc acagctctcc acccgcgggc 2640  
 cgcccatatc acacaatccg tccacgaata cctggaagga acatacccct tttcgtctcc 2700  
 agaaacgaag tatgcttttt atgaaatgga ctcccccg tttatggccc tcttagcacc 2760  
 cagtggccgg atagagcggc tcgagagcgc ggcgtcttt gtctctctga cggcgatttt 2820  
 agacggtact gtgccatcta tcccttattg caacttgctg tacggatatt aacacggggg 2880  
 aaacagatgc attcagccaa atgtccatct ccgagtctag gcagatcgga gccaaagctac 2940  
 tggatatcat gcggggcggt gcgctggctg acgtctgaa cccctagaa aagatccttg 3000  
 gcaaggttgt tgaggatatg aacgcgcaaa gccctgaact tgccaaggat gtgcttgatg 3060  
 gtgccgttgc tttatttctt gcgcagacgg acaaagcacg gttggaaatt acgcaattgg 3120  
 atgagtattt tgagtttcag tttagggatg tgggtgggtga gtatgtatct aacagtctga 3180  
 tgtgtggcat tggggctaaa aggctgactg aattatggcg gaagattctt catagcgcta 3240  
 atccgcttcg tgaatgatat tgttctctca cagtctgagc gggccaagtt caacagcctc 3300  
 gagaaaacga cgatccgact tttgatcatt gcaaatgata tcctctcctg ggaaaaagaa 3360  
 ctcaaagaag cgaccgagag caacaggaa ggcgccgctt tgtgttcagt tgtcccgatc 3420  
 ctggccagaa atctgggcat agcgatgcgc gctgctagga ctgttggatg agctggagta 3480

ccatcatgga tggccggtag caagctatcg gaaccagtta gaagtatcat ggggagtagc 3540  
 cgtagacagg gcctaatatg atcgcatagc agtggagacg acgagataga actagggacg 3600  
 ttatagaaaa cgcagggtat ttaggcgttt ataccaagaa attcagcgca gtttcagacc 3660  
 cacatatagt ataaaatttc cacttatata tttaaaaaag gccagccgaa tataaacgat 3720  
 atagaacaac tcctatgtat ctatctctag agatatcgcc acataacccg cctatgcttc 3780  
 aaagccataa cccagacgg cctatgatcc tggcactctc caccctcctt cctgcctcat 3840  
 caaacttgat ctgtctccca gtaacgagtg cctcctgcaa ccaagcacca atctgcaccg 3900  
 ccttgaccgc gttgctcagc ttcattggga gaggcgtatc gtccagacaa gcggccacaa 3960  
 attcattcgt ttctttcaca aatgcctgct cgaagcggcc ccagtaggtc gcagggactt 4020  
 cacgtgtaat cccaccagca tggtagtaat tgaccaagtc attggccggg ttcaagttca 4080  
 cggagagttt cccttcctgc ccaataatct ccgtcacgtc ttctgtccg tgcgccatca 4140  
 tccttgaaca gtagaagtac gcgatttttc cgccgtaaaa ctgcagcagc ccgacggcgt 4200  
 tgtcgaagtc attgtatttc ttcagatcag gcgtcaccgc cgtgattccg tacgaggaga 4260  
 tggacttggg gataatatca gaccgaaga accaaagtgt caggtcgatg tcgtgcacgg 4320  
 ccatgtcgac aaagacgccg ccagaccaag aggcgtactc gacataaaac ccgatgggt 4380  
 cgtgcttgtc gcacgtctgg gagcgagga tagacgggcg tccaatgagg ccgttttcaa 4440  
 cctttctgta ggcggctcgg taggacttgt cgaagcggcc agagaatccg cacatcacct 4500  
 tgagggtgtg ccgttttttt gctgttgcaa cgaccttatt aactacata tgccagttag 4560  
 catctcatct agagaggagg ccacttgata cgtacaatat caacattgat actcaacggg 4620  
 ttcttgcaag ggacaggaaa tcccttttca ttagcttgat tggccttctt gcatggactg 4680  
 acgtcgcaag tccgatcaca acagtctgga aaccgatga ctgataatgt cttggagggt 4740  
 ggggaacaat gtaaccctt acggttagga tgcttggtgc ccatggcctt cttagattag 4800  
 gggaaaacca ttacttagtt aatctcccg ctcggttgag aaatttaagg cttgggtttc 4860  
 ccatgttcca gtactggcc cattgaattt tgggggcac ttataaaaaa ttaaggctta 4920  
 atcttttttg attaaaaaag gacggccaaa ggggttattt gatccggcag gtttttct 4980  
 tagtactaca tccctgtgat cttgtgaaat tattgatttt ttataaaaag gtattaaata 5040  
 atgtttt 5047

<210> 4987  
 <211> 2499  
 <212> DNA  
 <213> Aspergillus nidulans  
  
 <223> unsure at all n locations  
 <400> 4987

```

tttctatact atctcccctc ctagcatcaa gcaaggggtc tagtatattt actatattct 60
atatagttta ataactatac taaaagactt tattacttta gaattctata aagagggcct 120
ctaagggtact tattaagaat actaataact atatagagta gttataaaaa ggctttgaag 180
ttactttata taacaaggaa tttcttgctt ataaaaacta acttctatgc ttagaaagta 240
caaagaagag gcttaaaagg taataatcta ggtactagat aatacctaataaagatatct 300
tagtacaaga agcaagagat ttaatatattat agagaaatag gtatctaaat attaaagatc 360
ttcctcctga cagatctact ctagagtctt cttctatact aagataatat ctactaatat 420
attctaatta taatacttca gggtataaaa gaacttaata tcctgtacct agttatcttt 480
aaattatttc ctaatttaac aatttgctt gttgggtgata gcttcaagtt tgtcaagcat 540
cagtcatttt ggggtgggtgg acagatgact gtgggtggat ggctgacttg ataattatat 600
tattatattt tattaataag cagtttaagt tactaagtat atttataatt agttaattac 660
cttaatatag tatattaaga ccttggttaag ctttcttaaa gtaattttta tctagaaagt 720
aaagatctag atattttata aaattttcta gtatattatt aataacttag tctttaatta 780
tataggtagt tatctaagat aatattatag ataatatagt accttctaata taaaaaaga 840
tatattatat cttagtataa tcattactaa tagccttagt attaatatta atcttggcta 900
ttaagaatat taaaagata ttattgattt tcttacttta tttattatat taggctatat 960
caggtagact ggtcttagac ttttaaaata gggatttagt agataataaa agtatagaga 1020
taaataatat ttaatagttc ttgcaggagt atatctaaag tctaagtaat tacttactct 1080
aattactagt ataatagctt tatctcttct taatattatt tatattactg ttatagttat 1140
tctatttatt attagtttaa tatctttact tattattata gttgctatta gatttattat 1200
tatatagctt atatagcagt ttaaaaggca ttaggggtta ttttatttat ttatcttata 1260
tttctagtaa gttccttctg ctaatttggt tattttatta tatttaaaaa ctatagggtc 1320
tgcttatata gcaagcaaat tcttatatta caagctagaa ttattaatac taatagagta 1380

```

gtattagact agaggaattt gctagaaaat taaaatataa taactatcaa gctttctatg 1440  
 agtattatag actaatatta gtaccaacct tgatttgta ttctagaagt tagtaataat 1500  
 tatatgagaa ctggcctgta cagggttat cccagaccag agattcaatc agcagttggt 1560  
 tcctagtaga ccagctcgtc gcaattcagg caatgctcaa atcaagactt cgggcgtagc 1620  
 ttgtcacact actagaaagt aaagattata taaatattat aattactaca gactaattaa 1680  
 ccaaagatat gatactagaa ggaatattaa aaattaactt taaaggtata gcctgggtac 1740  
 ttgtataagt atttataagt aaatatagga tcttaaaggc tattacctta gacaggggat 1800  
 gctagtttat aagtaatata taggcctgta tatataccct aacagggatt aactaccagc 1860  
 tatttatagc ctattattct tagactaata tgattaatta aaagagtaag cagtatagga 1920  
 gaaatctacc tctatatata gtacctgctg ataactagat agggactaga atacaatgta 1980  
 tttctacttt atagcagctc gtagaattaa taagctagta ctattacata catataccag 2040  
 gggatatagg ctgatatttt tatctaaagc tataacatag taatcttagc cctatttatt 2100  
 cctactaaag aggtagagta actagctgaa gaactaatta agagccctat ctagaaagag 2160  
 gaagctatta tatagaaagt taaggaagcc ctagactggg cttaagcctc tatagcctat 2220  
 tcctaataaa atataaagaa tcaggcta atagtgtcacg ggccgacgcc ggagccagct 2280  
 ggcgacgacc tggccctgtg acacgtgacc cctatccctc aattcccacg taacgcggac 2340  
 gggcgcccta cgggtgccta tccgccagta ggaatatgag ggatcgtcag atacgcacca 2400  
 caccagcccc ggattttggg ggagtgtccg cgccnctcc ggtcccccat ggattggtaa 2460  
 gcccggtgac ctttggttta cctatcccca gactattcg 2499

<210> 4988  
 <211> 1301  
 <212> DNA  
 <213> Aspergillus nidulans  
 <400> 4988

aagcgtgatg atatctcatt tatatctttg tctgattacc cgatgagcag aattatcgcc 60  
 gcagaatttc cttatctacg tcagttatgc tatgtttttc tgactacttc atccctcagt 120  
 cacctagttt tatcactgag atatctagat atttctcggt gtcagctggg tggggtagag 180  
 acaggtctag gacagttgaa tgtagccac tatgacaggg gtatcaatgg acaatgggaa 240

tattattgca gcttcaaatt caattcagtg gctgctcacc acgaactgca acacttaaag 300  
atcgccatc aacgtcetta attcagctcc ctgctcaccg ccttgatccc gaacgtcaaa 360  
cgagagctcc ccaaccaagg acttcacatt gctatgcac gttagcattg ccacagagtc 420  
aaaacagtct aatattgggg tcatattgga tgccataccc aagcaacttc cccagtcccg 480  
ctcccacaac agaccttagc acctccaacg aggcaaacgc tgagaacgcg ggatcatgaa 540  
tgtgccgaat actcatcaag tccttgctg tctgacgcac ggcacgcgca agcgggaatg 600  
aggcccctgt agacagatac gggggtaacg gctgggcgtt caaaaccgct gatccgaggt 660  
ggcagaggag agaggttgtg gcgtgggatt tgaagtctgt agattgtagc gcaatagagg 720  
ctaggcgaga ggaccatttt tttgtgaatt tatcttccat cctgggtattc cctcgcgttg 780  
agagcaaaga tggatcttga aaagattggg ctgtctgggc catcagggcc atgctgatga 840  
acattcgctg gatctcacgg atgatggcat cgtatgtcga tttcgggaac ttacctccga 900  
tacgcggctc gaaggtgcta aaatgactga gtgtccgtag tttcgtcaga agtatcatcc 960  
cctccttgaa gactcgctgt ctagtcttct gcagatcctg tgtaatcgcg gagttcgtag 1020  
actgtacaga gccttcaccc aggtcgcctt tcatccacag ctagatggtc gcgtgcaggc 1080  
agctgtagaa ccgcgcgaga agatatagcc cttccagaag ggattttgcg agtgtgctct 1140  
ctgacgctac agggcagggg aggacaacgc agataaagga gatcgtgcag cctgctgcaa 1200  
cagctagatg ctaggcagga gcgaacaggt ccacagaata ggtgggatag cgcgtgacag 1260  
gagccgacat ctgtagccag cctgcgcgctc tgcaccgcgg a 1301

<210> 4989  
<211> 13173  
<212> DNA  
<213> Aspergillus nidulans

<400> 4989

ggtcacgtct ttgccggctt cgtcgttggga tgagctatct ttttacatgc atctcgtcag 60  
tttgacata tgcattgcatt cctcacaccc cgtgagtgat tacaagcaca tttccggatg 120  
cactacttac gtcgctagcc ttgaagttga accgagtagt ataaaactcg taggcgcgtg 180  
caaatccgt cagcacatg ccaaatgcc cgagtttgtg gacgggagcg gggcctgatc 240  
gcaggttagt ttgtatacag taattgatgc caggtgatgc cagggaggac ataccgggtt 300

tgaacctctg	actgctat	ctggccgat	gcttttctgt	aggcttcaac	aagtcagtcc	360
cacctcggtc	gacacgacgt	agtgatgaaa	aacggaagat	aagagaggta	ggagatcgag	420
gacacgtaca	aaattatact	gcaacactgg	caagccgtct	tccccctgtt	tctccccctc	480
ctcttctcgc	cctcgctggc	cccagaccag	atgaaacgga	aatccatcga	ccgggtcgtg	540
gaatgtgaga	gacagtccgc	ctccaggaac	accttctgcc	tccaaatcaa	caatccccgc	600
cggcccagga	agtgtctcag	ccgcatagtc	aaagtcttct	cgtgattcga	ccacaaacgc	660
ggcaccgcca	aaggcgctct	cgggcccttc	gcgcgcgcag	tagacaaagg	gctgctgggt	720
ggttggtccg	cggtagtaga	ttgttctctg	gccggtgctc	ggcgaaacag	tctgggtcag	780
ctcctggaag	ccgaaatcta	tgagaaaccg	ggacgctgct	gcgaggcca	cgtgggtgta	840
gcagacgtgc	gcgaggcgaa	cgagacggat	tggcttggtt	gctggcgta	ttttgttgtg	900
tggactggtc	tggcctgtct	tattatctga	tattgttcat	gggttactta	gctagctgcc	960
ggtgccactg	caatgaaatg	cgttggtctt	taaagtcac	caaaatatca	aggaaatgcg	1020
gacttcctta	tctgttgtct	tccgcttatt	cgttccccag	gccgtttagg	gatgcctaca	1080
gctcggacga	tccagtcggg	gggtcttcgg	tcagattaat	gcagatcgtc	cgagtgggcc	1140
cattcatgcg	attgcggagt	agagaagaga	agccgagcta	gatgagagag	cctcgggcta	1200
agacgatttg	tggataaaga	cgtgcgttgc	tccaaagtcc	cttgccgagc	ttttcgactg	1260
actgtattct	caaacagtca	aagacctgca	tatgcagccc	acgatggccc	cctcatttct	1320
tacaaattcg	ggtgcatctg	aagccctcac	aaatgccaat	accatgtcgg	gtgccagtgt	1380
agatgaaatt	gtcgagacgg	aattcctgat	tgccggtgca	ggtccagcag	gagctgcttt	1440
ggcctgtttt	ctcacttcat	acggtagacg	gacctcatct	tttttttttt	attgattctt	1500
acaatatctt	gaaatcaagc	actaactata	gaataggact	caaaggcatc	atggtcagtg	1560
cggcgccctg	cacggccaac	acgccgcgag	cacacatcac	caacatggct	gctcttggtg	1620
tgttgcgctc	tgttgcgctc	tgttgcgtcc	tgttctgctt	gtctgttcgc	tctgataccc	1680
gcgcgaatgc	taacctactg	agtttagagt	gtcttcgtga	tataggcctt	gaccgtgaga	1740
tgctgaaggt	cgcttgcgat	ggagaacaac	atatggtcca	cacgcgatgg	tgtcacagca	1800
tggcggggcg	agagtacgcg	cggatctact	cgtggggaaa	cgacccgaga	agaaaggtaa	1860
gtttggtatc	tgatttccca	tgtgcattca	caagagaaga	aaagtaacat	ggaccagggg	1920

gactatgaaa gagccagtc atgctccccc gtcgatctgc cccagacgct gctggagcca 1980  
atcctcgtcc gtcacgcaac atggcacgga ttcaccacca gattcgacac cagcgtgctg 2040  
tcctttgtgc gcgacgagaa acagcgcac actgcaacag tccgcgacaa tctctcgcgc 2100  
agagagtacc agattcggac gagatacctg tttggtgctg acggagcgcg aagtcagatt 2160  
gtgaagcaac tggacctacc gctggccgct aaaccaggcc agggacttgc gatcaacgtg 2220  
ctagtaagag cagatctctc ccacctagtc gtcaccgaa aggggaatct gcaactgggtc 2280  
atgcagccgg atcgcgacca tcccagcttc ggctggatgg ccatcatccg catggtcaag 2340  
ccatgggacg agtggatggt catcctcttc ccgaccgag actatgatcc tgcgagtgcg 2400  
aaccggtcca aggaggagta cctgcagcga gttaggcagc tgatcgggga cgagacaccg 2460  
gccgagatcc tgaacatctc gaagtggat atcaacgaga ttgtggcgga gacatactcg 2520  
gacggcaaca acgtcttttg cctgggcgac gcagtgcac ggcatccgcc gttgaacggc 2580  
cttggatcca acacttgat ccaagatgcc ttcaatctcg cctggaagg tgcatactgc 2640  
caccgcgga ttgcaggagc ccaattgctg tcgacatact ccgccgagcg gcagcccgtc 2700  
ggccacggga tcgtgacgcg cgccaaccag gcgttcagg accatcagca gatctgggcg 2760  
gcgctcgga tgctcggcg atcgtcgcg gagcgacagc gtgcgcttca agagctggcc 2820  
gagcccacga tcgtcgggcg cgagcggcgt caaacctcc agaaggctgt tgcgcatact 2880  
gcacacgagt ttcacggctt aggcgtcgc atgaaccagc gatacgaggg tccaggaatc 2940  
tacgacgcag acgaggccga tccctttgca ctccctggcc gggcgccga ggatcccgtc 3000  
ttgtactatg agccgaatac ctatcccgc tgccggctgc cgcattgtg gctgaaccgg 3060  
gccatcccag ggcagccagt gtccacaatc gacctcgcg ggcacggcg tttcacacta 3120  
ttcaccgta ttggaggtga gccgtgaaa caggcggcg agagcttagg tggcaagctt 3180  
ggagtcaccg tgcattgcga ttcaatagg ttccggcaag actgggagga cgtgtacttt 3240  
gaatgggagc gccttcgcg ggtggaagaa agcgggtgcg tactgggtccg tccggatcga 3300  
tatgtggcct ggagggcaga cagtgtgtt aaggatgtt ctgcctgcga ggagaagttg 3360  
tcagtgggtc tgaaagcgat cctgtgtgtt gattgactgg tgaaacactc gccggaatgt 3420  
ttgttacata gactcttagt agataccacc agcatacacc ctgtcaatca aggcaagccc 3480  
tgcatatcca gacgcgtagt ggccactca gcctgaggtc ccagttccca taaccgggta 3540

aagtctacag acggcatggt ggtcccaaag aggaacatcg gatcgacaag tgtggccgac 3600  
gagaggaact ggctaggcaa cggctggcaa tccatcgact gtagcaccat agaatcgagc 3660  
atcgatccct cgttcacat accgcccgcg ggccccgtct cggactgcca gtcagacagg 3720  
ggcgcgacaa tatgactctg agccaggctg ggaaacgccg gcgctggggc tgtactgtct 3780  
ggccggcgag caggagcaga tgttgtgtc tccgcttgct tgcattgctc caactgttcc 3840  
tcgagtgtct ctaggctctg ctgaacggcc ggatgcatgt cccagaaccg gacacatttc 3900  
ttgtacgtca agtggaggac ctcatatcgc gacttcacaa ccaacttgag cgttcccggg 3960  
cgacagagct ggctgcgcac cagttgcaca gcagacgcc gccagatcgt gctcgagagg 4020  
aagggcatgg tgtactgaat gtggtcggcg ctgctgcgtt ggatgatggc caggacattg 4080  
tccgccgcgt tgaaatatc cctgacggcc gcattgctgc cttccctcat accgctgcta 4140  
ctatcatgat ggtcatgatg atcatgactt ggtagcgaga cccggaccgc gcccttaaag 4200  
acatcataac ggtagaccat cagcctggcc aggtgggtca tcatgtggat attgtagacg 4260  
gcgctgttca cccgtctcgt gccgcgcgcg tcgaacgtca gatcctgggt cttgtatctg 4320  
agatgatcgg gcagcgccag ttgaaagcac cggatcgctt tggcgatgat ctccagctgg 4380  
tggcgggctt cgtcgacctg gtcgactgc gatcgactgg ggatccctct cgggctcgag 4440  
atgcgctcgc cctctttcat cagcgagttg atgacgatga accaggcctt gggcgactgg 4500  
tttccgcaac tctcgagcac cttccaccgg cgaataggat ccggttcgaa gaagcagctc 4560  
tctgtggct ggcactgaaa ccagtattcg tcgtcaacag gcagcaggat ctcaatctgc 4620  
gaccagtcta ttgcagtggg cgtgcgtcgg atggtggtgg caaagacatc catttcccag 4680  
attgccacc aagcacgacg ctgctcctcg tctactacacc atttagaaac aactaggcca 4740  
gcgacagcgt gcctagggcc ctgaacatcc accaaatgca gggtcatctc atacgctagc 4800  
cgaacgcacg agccgagagt gcgccacgcc cggccgagaa caccttgggt taactggcag 4860  
tgggcagcga ggacacatgc ctggagcaag cacagtggcg gcgtctcgtc gccgcattcg 4920  
tccagggcct cgtcgatctg ctgcagggcc acattcagga accgggcggc ttgcctattg 4980  
acgtcctcct cttctggacg aaaccgcacg gcgaaggcga acatggcggc cagtagggct 5040  
gccatttggg ctgcagacgt aattcgtgcc agcttctccg ggaagctggg ctggtgaaac 5100  
agacttatgg tcgtcatctt gtcaaagtag atcatcgtgc tggaagaagt gtcaatcaga 5160

tgctgtttct tcgtcttctt ttgtcttcgt agtcctcctc gggtagtgta ctcacagttg 5220  
 ctccggcctct tccagggcga caccctaaaac ggcgtgcgct cgctgcatgg ccagctgcgt 5280  
 cgtttggaaca ctgcctggac agtgtcttgc tggcccgag gcctctttat ttggggggga 5340  
 ggatacatgg gatggatgca ggataaacga cagatccagg gctttggcct cagccgcagt 5400  
 cgagccattc cgtacgctcg cccctaccag cactgtgctg gcgccttggc cgtcggggac 5460  
 gcagctttcg ctatggatgt ccgatgcata ctctccttct tccaaccatg cgacagcggc 5520  
 accggcggga ggctcatgtt cattgtcaac cgtggcacgg gcccgtttcc tcgtccgcag 5580  
 agagccgatt ttgggtccgg gcttcagggg gccagcagga tatgtgcaag tattatcgg 5640  
 ctgttcacag acaaggcagt gaggataggt gcggtcgctg ggtctgttag ttcttgtcca 5700  
 aaggaggagt ccatcactat ggtctgcagt ctgcagtctg ccacggacgc accatttgac 5760  
 tttccgcttg cggcacgcat gacaggagat atctgaacgt tggtcgcctg aagaagaggg 5820  
 cattttacgg atggaaacca atgaggagaa taggataatc tatcagggca tttggtggaa 5880  
 agtttgggga aggggtaaga gacggagtgt gagcttgcgt ccacaagccc aggtcgtcag 5940  
 ggaccagagt tagggcacc caccaccct ttctcgctcg cggggtaaaa gaatgtggat 6000  
 tacgctgggt ataaaagtgg accactagta ggaggtggtg gcggagaatg ggaagtagta 6060  
 agtgggaatt cgtccgaaat cgcaccgaaa tctcttacia atccccgac ggaccagtta 6120  
 tcgctttggt gatcatttca tatttcagag tatattctgt actggaccaa gctatgcaga 6180  
 ttattcatag taaatccggt tacagagcgt gccgatcccc tggatttgaa cagcatatc 6240  
 gtcgccatct ctacgcagca cctttggatc acgcattgcc ccaatccctg gccctgtccc 6300  
 cgtcatgatc accgtgcctc gctccagggt ggtgccctgc gatagggaacg cgatgatttt 6360  
 agggatgtcg aatatcatct cttctgctct gccatcagcc acgggctctt cccattgaat 6420  
 gatggaccac gcaaaaataa aaaagaaaat aaaagtaaaa ataaaaataa cagaataaaa 6480  
 ctggtcttac ctctgtttgg agtcctgcac cactaatcca ttgtgaatag ccttgatata 6540  
 gagctggtgc gggtcgactt ctgagggagc caccaagaca ggtcctagcg gacacgagcc 6600  
 atcaagccct aacattcaaa gtcaggctca agcgggacaa caaaagacga gctgggagtg 6660  
 ccagtctgct ccgcttacct tttgaaaagc tccactggct attcttaaac tgctgcgtgc 6720  
 gagcgtcac gtcgttgctg cacgtgtagc ccagcacgta gtccatggcg tcgcactcag 6780

gaatgtcgcg gcccgttctg gacatgatca cggataattc ggccctcgtag tcgctggagc 6840  
 catcctgggc gatcttaggt acattgatca tggctgggtg tggaccattc agcgcagtcc 6900  
 ggggtttgat gaacagcacc ggcacgtcgg gaataggcat gttggcttct ttcgcgtggt 6960  
 cccggtagtt gagacccatg catcgaatga gaggcacgtc atccatatcg atcggggcga 7020  
 ggagctataa gacgtcatta ttgatttggc aaggagacat gaaggagcct aagagacggg 7080  
 gggcaccaac tcgcgcaacg tgcaaggtct tttcagtaac gattccgtca aagatagatc 7140  
 ctgtaaccat tcgtgcaaca actcgtctct catttaccac agacaggcca acgtctggat 7200  
 attgggccgc atctacttca ccaagatgcg tctgtccatc ctcttcggca atgaagcgga 7260  
 tcaatcgggt ccaggtcgag gtcggggcca ttttgtgtg tgtaaatttt tgtttagatc 7320  
 aagtaatatg tcctcttctt tgttatggat aatcttttgt tgcagcagat tcgtgtgcct 7380  
 ccttatatga tcaccatcgg cagttgttga cctcaagcag cgagtcggac catcttcggt 7440  
 gcaattgctg gacttcattc gcggagcaat tccagccac agtccgcccc aggccgcgcc 7500  
 gcgcacctc aaaaagctcg caattaccaa gaacgggcca gttgccggcc atcttccac 7560  
 tgattagtag tatggtgggt gatcacatgt cggctttgga ggtggtagct ggcgtcgatt 7620  
 tgatcatggt attgatatct gtaatgagcg actgcattga aggtcttgat cttctaacta 7680  
 tgatctgtat agctaattta tacacttcca aaggcttcaa aagaatgttc tcgatatcgg 7740  
 taaataatta agttaatata tggttaattg cgatccgtct atggcggtgt gattgcatca 7800  
 tatgattgga cgagcgaggt gctggatatt gattagtaag aagaggtctc ctctggtcga 7860  
 taacttctac caagaatagg ggggtattta tacacaagct gttgaaatct tgctaataca 7920  
 gtcgtatttc tctagctata taaccctct gtacgcaact ttatacagag gttatttggt 7980  
 ttccaacttg ctcttgctgt agtcactat ttaatcttgt tcttctgga ctatagccac 8040  
 ctgcctaggg cgccgtgtag gttttatagg gcactcttat acaaagtagt caggattact 8100  
 atagtatagg tatctgccct tagacaacct cttttacttc tcctctgcag gtgcctgact 8160  
 agcttttctt agggctctgg tcccttttat atggagggcc gcaacttctt tttatagggc 8220  
 tgcaatttga gcatgggtag cttcccagtc tatctgatca ggggttctgg tctggtcaga 8280  
 gcctcctgct ggtcttatac aagtaacatg cataggaaca gcagtacaag atccttttta 8340  
 tataagcctg gctactctct ggaggttggt gttgattttg cacagttgat tatagtagtt 8400

gttgtacaaa tcctcctgcc taataccaac catggccttt agcaactcaa cattaattgc 8460  
 cctgtccaac aaggcctttt tctagttatc atcccaatta atccctccag cattaagaag 8520  
 ttctttgtca aatttattca agaactcttc aaagtcatat ttcctttact ttattatatt 8580  
 tacttgtaca agagcctttc tctgttagtc agggttacca aaggccttgc ctagtactac 8640  
 agagaattct gcccatagca caggagtctt agatttctgg cgagccaaga gctatggtag 8700  
 tatatgctgg ctggcctttc ctctcaggcg gctataggca tagtaaaactt gttcctcctc 8760  
 tatagggtag caggcagcgt tgattgcaaa ctttatataa aggtttatct ggaaaggagg 8820  
 gtagtcctta gggcttctc cagtaaaggg ttgatatcc aggtaacaag gacagggata 8880  
 gctttgttta tagggggtag gcggtgcaga tataactgta gtggaactg gtagatagtt 8940  
 tctcagttgc gagttctgta tggcctgtag ttccgcctgt aagctgttat tctcttcttg 9000  
 gagctgttgt ttctaagtct gtatctctgt acagagctcc tggagctgct gtagcaacaa 9060  
 tacaatgctt tcttcttcta ttgtcatagt aaaaggctc ctcatactat tattgagatt 9120  
 ggtgagcgat tctaattgtt aaggacata ttagatgga tcttcctatc tagacatgcc 9180  
 gtacgtacaa gaaggaatcg ctaaagaaga aatgagaaag aaggattgtt gttgcaagga 9240  
 agtctttag gtggctcacc gccttcagga cagcgcaggc cttggccgag tactaagggt 9300  
 ctaaggctct tgtataggca aaggacccat aacactgggg aatgcagggt cagagtccaa 9360  
 ggtaagaat agggctcgtc caatctccac ctggcccca acaacgacaa cctcggcggt 9420  
 ccactttact taccatgg agctagttgc cttcgttcc tctcatacc atatgatagt 9480  
 gcaatgaaca tggcttcct gtcaatattg acgagatctt tggcctggac ctaagagatg 9540  
 atgacatgac agccaggctg ggtccgtggt agttcgttca tttagtttta gtggcttttag 9600  
 tgaggtagtt gagagaaaaa gattgatata cgccgtacat acatagatat cgatctaccg 9660  
 agtaattata aagccatgtc taccatggca gcgcttgccc aagactaaac accttaatca 9720  
 gcaacagagc aaaaactaac ttgaagaaag tcacagcctt attcttcac gtgattttca 9780  
 tcgtcgactg ctgcttcgtc gccgctgtt gcttgatctg catcctgagc caagcgatcc 9840  
 ttccagacc agcctctaag gtaggcgcc gactacaagt cacggtcaga ctttgactat 9900  
 atgctttgca tccccatgc ccgtcaagg tgcacacaaa agcggattgt tgggtgaagt 9960  
 cattttcttt ctagtggttg tgaccgctag accgattttg ctggtatcaa aaaagaggaa 10020

ctaagaactc ctggctgagc gccttgctta gacttgatgt cctcgccag ctgctgctca 10080  
 ttttcgtagc atgtctggac actcctctcc ccggttctga tatttatgaa gctcgccaag 10140  
 ccatgatgat ttcccccgcg cgacagggat acctggaaac cctgggtggtg ctctgcgttt 10200  
 cggttcattc cctttgcagt accatctgcg ccatgtcatg ggaggccaga agaacaagtc 10260  
 ccgtagtcca tacgggagca tccgcttcac tacacgagtg ccgtagttca ggggccgctg 10320  
 ctgcttgctt ttgtgggagc tagaagtacc ccgaccgctt ggttcttctg cagtggtagg 10380  
 ctgtgcggtt ggaggtagga gggagtatgt ggcattgata actcaccatc agccatcaat 10440  
 atcggaatga gtttctgaga ggataatcat gctttgaaag gctgatatga gagccgatca 10500  
 tggcctcatg aaagagaaga gagagagggg gggagagaga gagaacacaa atgtacattt 10560  
 aagggagcgt aattctgagc ggctatcagg ttaccaggt ggtatgtatc ccacccaaat 10620  
 ggggaagggg taaacccac gtgacgcact ttcacgatt cctttattga agtcaagtcc 10680  
 catcactttc cattcttctc tattcagctc gtgcaggcgc tggcagcatc agcttctttt 10740  
 tgagcaccac gtcctgacac aaatacgtca ccaactcttt aagcactctg attttgtctt 10800  
 gtccgctgct cgccttgctc agctcgctac ctttgttgcg aaaaatgccc caaactggga 10860  
 cgatcttctt gtctctcttc caatcgagcc accggttgat gctgctaaac gctttgcgca 10920  
 tattggtatg ttctcgaga gcttgcgccc aaactttgta ttcacgcca gccccgcttg 10980  
 aatgtaggca ctgacaacaa tacatgataa gagatgctag accagcggca agcgcgctcg 11040  
 agaccgatga gccattgtgg tagacaacgg gctttgctga ttgcggcctc tgctctcgg 11100  
 ccacctggtt gctggcagg tagtacgtga tggagttctc gctaccgaa cctgggtctc 11160  
 ggttcgcaag aggccccgtt gagccgatac agagaatctg cccggaggct tcaactgtacg 11220  
 ggagagtatt atctctaca agacggatat cgtcagctgc ggagcagatc aagagtcgtt 11280  
 tgttgcttct gacggcttct gcgattgctg ttcggaggag ctgaaggtca ttctgctccg 11340  
 cgtgcttctt gttgccctct gcatcagaca tgttctccga aatcagagac aaccggtatt 11400  
 ctaagtcggt tatggtccaa gacatggaga taatgtcggc accgtgcatt actgccgct 11460  
 tgatggcgtc cgcggcgctc ttgcggtga tgctacgcgc cctgtacca tgtatgaacg 11520  
 atggcctgct ctgatcttg atcacgtcaa ggcgtacca cggattaatc cggctgatca 11580  
 tgttggccat tacagttcca tgcccctcag tggatttcca ccaagcgtcc ccgtcgcaac 11640

aacttacacc ggtatactgg gttgtgttgt tgtaggtgtt gaaatcgtcg aggtcaatcc 11700  
catcatcgat caaggccacc ttccaccat tagccagatt acaaacgata atatttttgt 11760  
ttcttctttg gatcacttac ccgaatcctt gggggctgat ttagcagttt ggtatcatgg 11820  
agccccctca gtgcatctcg aaattttacc atcgcttcaa tccatgcgtc cgaacgtggc 11880  
ttttcaaact gctctccaag aagtgtatct cggtcgcat cgatcatcgt actgacaacg 11940  
gcacctcgta acaacgtttt ggacgtaact tgcactttgc cttttggtct ctcgtcgatc 12000  
gaagtacgaa acttacggat catggatttt ctgcgcgccg tattctctaa acccttaacg 12060  
atcctaagcc tgctgtccca ggatatgtgg attcgtcacg tacctgatat gcgtgaaggg 12120  
taattttgga caacagtgat cttgggttcc tgcacataag cgggatccca tcctcactgc 12180  
ttgccagcc gtgaaggaca gcctggtttc cactccaatg aagatgaata tgttccacta 12240  
acggcgccgc atggttgatg acatccaaat ttatgtctgg cttgcgcaa tcctgcgat 12300  
tgtcaaaatc agctcggaca caacaacagg agcattgggt actccatacc attctgctat 12360  
ttcgagcgac tcctgcgtt ctccactgga ataaggagtg tatcccctaa tggcctgttc 12420  
aatggccgta tctgtatgtg ccattcatc ggcattatcc tcaacctcaa gccgtaggat 12480  
tctgcgaaca ttcacatcaa ccagtttggt aaacaccttg actagagtgt ctcgccctct 12540  
gggttgctcg tcaagaggac ctctgttgag ttgtcttttc tcatttgca cattcggctct 12600  
ctggcctttc ggcccattct gtgtttcgga cgccagtttg ggaatcctta cgtatgagag 12660  
ggtgtcttcg aacctccgg ccttggaac tttgtcaatt aggcggacga catcatcgac 12720  
atttttgcca cggaatgac tagcatcaaa aaagagattc ctgtctgcga acaaaaatgc 12780  
gcgttaaacc ttccgagtca cacaggccaa catccataat gcatgggctc acctgaagca 12840  
atctttccgt acaataggtc ttttgcatt ctgtcactag tgctctgaat gaagaagcat 12900  
ttcacgaatg ccagaatata agctgctgct ttctctgct cttttcccg ccacgactca 12960  
gtttctgcgg caacgccgga tcttaaacca tccgacttcg caggtttcgc ttgttttgcg 13020  
tccggcacag atctttgctg ggctcattt tctgtgggat caaggtagc cgtgggcctt 13080  
cgagacagtg atccattatt cggctctccg aggtctttt ccttttccgg aaagactgaa 13140  
ggagctgaga gatgcagggg ttcgcgcgcc gtg 13173

<210> 4990  
 <211> 3746  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4990

```

gggatgatat cattagggaa cgaataatgg gtctcattct cacagctgac aatgacttta 60
cgaaggacag gggcttacac tacttcaggg gcattccttaa ccgacactca cctattacag 120
tggttgacgc tggcaaacac cgaggcatgt gtagccggca ttgtataaga tgccttaaca 180
gaaactgaca aggacagaac gtatgcctat catccgacct cttcgaatcc tgtttgatac 240
atctgatgga tggtgaaaac cccctgctgc gacagtggtc gtgcctctgt atcagtatgc 300
tgtggtcaga ctttccggag ccaagtggat gggaattcgg tggtctgcgc cgatgagact 360
ttgcgaacta aacttcgacc ccgtcccaga agtcagggcc gcaatgcttc atgccctgat 420
gaccttcctc ggtatccccg atctgaccga tcaggtggca cagattgagg aatctttagc 480
ccttgccgtc ctaccgatgg cttccgatgg tagcgtgatt gtcaggaaaag agctccttgt 540
gttcttttca actttcgtga agcgtatca gaacaaattc cttgttgctg cttacgagga 600
acttcaggat gaaaagctga accttctcgg taaactaggc ttagatagct ctccgcctgc 660
agagacgggt actgcaggca agcctcagcc actgtccaag aacacaacat ttggcacaat 720
ctggaagcaa cttctgattc tctccgttga tccccatcct gacattgcgc aggatgcggg 780
gataattgtg gattacatgc atcagttgtt actcgaatct cctatggccg cgctaactgg 840
acgacttcgc aaggaaatat tggacctctc aaatcaagtt gaccaacagt cccaggttcg 900
tgaaaagccg aatctgaaga aggtgcgcc gccgccgct cctcccaccg cgccccgaa 960
gcaagaaggg tacctctcat tgagccttag gcggactgct agtgtagcag catcgctaaa 1020
aaatctcgca tttggcggcc cttcgaggg agaatactcc caaggatcgg aggcataaac 1080
atcccccaa agtcgtgcac ctgccacccc acgagggcga gtcctccgg aatggactcg 1140
gccacccgag gtcaacgacc aacttgctcc tgcaacaaca taccaacaag caccagttcc 1200
cacttcgctg gggtttgaac gcagagattc atcagttgcc ccaagcattc cactagttag 1260
tagattttta gattggcca cagaggtgag ttgagaactc caccggattt gacgaaaaat 1320
ccaataaacg ttttctaacc catgcgcagt acttccgcga accgcaaagt aaacccaatg 1380
aaccgcacga gcccggtagc gcggattaca atgaacgtct ctggaggcgc agccgcaacg 1440

```

agaaaatcat ttcggagacc cagccccctga aaggaaaagc aggcagcagc cgctgggata 1500  
 actcgatagc gctgttatcg aacgccactc agccccctaaa gatgtgcttt catcagttcg 1560  
 aggaccacat tgccgtggcc gatgatagag atacgattgc gtacgtactt tgaaggcgca 1620  
 atggcgcggt gcatgctgac ataagagtag gatctgggat tggcagaatc acaaacgcct 1680  
 caaccgtttc tccaacggga acccattggg atccaagatc aacgaagttc gttacataaa 1740  
 cgaggatgac caagctcttc tgatgacagg gtcgtcggat ggctgtctca aagtgttccg 1800  
 caactatgaa tcagccaaag acgtcgaaat cgtgaccgct ttcagagcat taccggaact 1860  
 aatccctagt aaccggaacg ccggccttgt tctcgactgg cagcagggtc aaggtaaagc 1920  
 tctggtcgcc ggtgatgtca aagtcatccg ggtgtggaat gcggcaacag aagtctgcac 1980  
 gactgtaagt cccacttgcc aaactacttc gctttttaac ttaccgaact aggatattcc 2040  
 cgcccgtcc ggctcctgca tcacgtctct aacttctgac caagttgcgg gcaacatctt 2100  
 cgtggccggc tttggcgacg gcgcagtcg cgttttcgac cagcgcctca aaccacagc 2160  
 gtcaatggtc aaagtatggc gcgaacataa acagtggatc accaacgtcc atatgcagcg 2220  
 cgggggcctc aggggaactca tctccggcag tcgaaacggc gaaatcagac tttgggatct 2280  
 gcgcatggat aatcccatct caacgattta cggcacaaga gataccctgc gcacactgag 2340  
 cgtccacgaa cagcgcctg ttttcatggt gtatgtcctg cctctcctcc ctttaccatt 2400  
 ccgtctcgtc tttgtgtgta gtgtcataaa ctaatagcaa gcacagcggc acaaaccgcc 2460  
 atgaagtaaa gacttacaac gttgacggaa cccacctttc taccttcgag ccttactcaa 2520  
 gcttctcca ccataaccgc tctcgccca tctccagtac agcctttcac ccgcaccgca 2580  
 cctcttcgc ctgcgccg cgctcaacgata atcatatcaa tctggtcagc tgctaggatt 2640  
 ttcaacgcct acctatttta actgccgttt cttctttcat gtcttttgtc tctttctcgt 2700  
 cctcttctc gtcttgcttg acagcacgga cattggcgct tgggtcttg tctgggtctg 2760  
 gtttgggcac gcaggtactg cctctattat tctctgcttt accttgact ttctgatagc 2820  
 atggccgtca gttcgatgt ttattttaat gacgcacgg ttttcggcgt tcggcaggat 2880  
 ggatcttcga tctcgatttt cacatttcag atacttgtct ttttcagcac tagcatctta 2940  
 gtattgttgc gctctccg cgattcttatt tatatgtgcc tgttgactgc ttgtctgatt 3000  
 gtatattgat ggagccatgg ttataggacc tactttactt agagtggata atagggtcgc 3060

ggtaactgcc gtcttcatct acttttagaaa tggaagatta gatggattga acctgactga 3120  
 aactaaagaa taggtatgta agtattgtgc actaaactcg cgataagggtc ctgcactcgt 3180  
 aaagcaaagc aacggactcg agtatctctg atttcgtaag gccatggaga gaggtatatt 3240  
 aacgcgaccc ttacataaac aatgaaaagt tgtgcataaa cttgatcgga cggctgaacg 3300  
 ccgtaatcaa tatgctagaa gaggcgcaag tgaatttaga gctgcgaaac gtcatgctaa 3360  
 gtgaattcgc catcatggat tatctgctcc atgagtctct cccaagggtc ttcaaagtaa 3420  
 ctgcgctgtc cgctgactgg cagatcgag aagcgcgacg cgacagaggc aaaatctgca 3480  
 aaatatcccc tctggtcacg gccggagttg taagcgtgaa gattagcgat gacgtcgccc 3540  
 agggccgaga tagtttgctt ggtaaggatg cgatcctgtc tcaaataagt ttgccctcct 3600  
 acacactcag tcgtatcaac aaagttttca acagtgttag cgatatgttg gcgtactgct 3660  
 cttctccacg aacgtcttgg tgaaacagta acctgcatca cgaagccttg ctgttggtga 3720  
 cgctgaaatt ttgtcccagg cggtat 3746

<210> 4991  
 <211> 6276  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 4991

atcagatgtg ccttgaacaa agccatcaaa gatctggtgg aggtaagtgg ttagagccag 60  
 gcattctcgc ttcttgggat ggtgcactag caaaggataa cctacaggca aatctacact 120  
 gcaaaatgaa attctaggag acttgggcat agagttcggc tccacgcctg aaaagccaga 180  
 agacaccctc ctagatgagt taggtgcac tatgcaagcc acattcagcg ggcaactagg 240  
 caagcaatct tctcgtctga ttgctcgtct tgtctcgtcc aaaatgcctg gaggtttcaa 300  
 tatcacggct gtctgcaaat atctggagac aagggtggggc ttgggtcctg gccgacagga 360  
 tggcgtctta cttctcgccc ttactatgga acccgctca cgtatcggtt ctgagcccga 420  
 cgccaagggtg ttctttagat atgttgcgaa taaatacgct gccaaactcag gcatcagcct 480  
 caatgtcccg acggcttctg gagacgggtg agcaagtga ggaggaatgc tcatggaccc 540  
 cgccgctatt gacgctctga ccaaggatca acgtgctttg ttcaagcagc aactggagat 600  
 aatcgcccgt tacttgaaga tggatctccg agacggtcaa aaggcttttg ttgcttcaca 660

agaaaccag aaaaccctgc aggcgcacgt cgatttatgg caagcagaac acggtgactt 720  
 ttatgcctcg ggaattgaac cttcctttga ccctctaaag gctcgtgttt acgactcctc 780  
 ttggaactgg gctcgtcaag atgctctgag catgtactac gacatcattt tcggaagact 840  
 caaggtcgtt gatcgtgaaa ttgtcagcca gtgtatccgc atcatgatcc gctcgaaccc 900  
 tcttcttctt gaattcatgc aataccacat cgacaactgc ccaaccgaac gcggtgaaac 960  
 ctatcagctt gccaaaggaac ttggtgagca gcttattgag aactgtaaag aagttcttgg 1020  
 tgtctctccg gtgtacaagg atgttgccgt acctaccggt cctcagacca cgatcgatgc 1080  
 tcgcggaaac atcgaatacc aggaggttcc tcgtgccagc gctcgaagt tagagcacta 1140  
 cgtgaaacaa atggcggaag ggggccccat ctccgaatat agcaaccggg ctaaagttca 1200  
 gaacgatttg agaagcgtct acaaattgat ccggagacaa caccgcttgt ctaaaccctc 1260  
 ccagttgcaa ttcaatgcac ttataagga cgttggtcgg gctctcagta tgaatgaaaa 1320  
 ccagatcatg ccgcaggaga acggcagtac gaagaagcct ggccgcaacg gctccgtacg 1380  
 caacggaagc cctcgcgccg ggaaagtcga aacgatacct ttcttgcac ttaagaagaa 1440  
 gaacgaacac ggctgggatt acagcaagaa gctcactggt atttatctag atgtgctgga 1500  
 gtctgctgcc cggtcgggcc tcacattcca gggtaagaac gttttgatga ccggtgctgg 1560  
 agctgggtcc attggagcag aagttcttca aggattgac agtggcggtg ctaaggttat 1620  
 tgtaaccacg agtcggtatt cccgcgaagt gactgagtac taccaggcca tgtatgccag 1680  
 atacggtgca cgtgggtcgc agcttggtgt ggtgcctttc aaccaaggca gcaagcaaga 1740  
 tgtggaggcc ttggtcgact acatctatga taaaagaag ggcttgggtt gggatctgga 1800  
 cttcattgtt ccatttgctg caattccgga aaatggacga gaaattgatt ctatcgactc 1860  
 gaagtcagag ctgcgtcacg gcatcatgtt gactaatctt ctcagacttt tgggtagtgt 1920  
 caaggcgcag aagcaggcca atggtttcga gacacgacca gcccaagtca ttctcccgt 1980  
 gtctccaaac catggtacct tcggtaatga cggactttat tcagaatcca agctcgcttt 2040  
 ggaaacactc ttcaaccgtt ggtactccga gaactggagc aactacctca ccatttgccg 2100  
 tgcggttatt ggatggacgc gcggtacggg cttgatgagc ggtaacaaca tggtcgccga 2160  
 agagttgaga aactgggcgt tcggaccttc tcgcagcagg agatggcatt caacttgctc 2220  
 ggctcatgg ctctgcaat tgtaaaccct tgccaacttg atcctgtctg ggcagacctg 2280

aacggcgggc ttcaattcat ccctgatctg aaagatctta tgactcggct taggacggag 2340  
 ataatggaga cgagtgatgt tgcagagcgg gttatcaagg aaaccgccat tgaaaacaag 2400  
 gttgtgaatg gagaggacag tgaagtccta tacaagaaag tcatcgaga acctcgcgcg 2460  
 aacatcaaatt tccagttccc gaacttgccg acttgggatg aggacatcaa acctctcaac 2520  
 gaaaacctta aaggcatggt caatttggac aaagtcgtcg ttgtcacagg gttttctgaa 2580  
 gttggaccat ggggtaactc ccgtactcgc tgggaaatgg aggctagcgg caagttctct 2640  
 ctggaggggtt gcgtggaaat ggcttggatt atgggtctca tcagacatca taatggacct 2700  
 atcaaaggca aaacctattc tggctgggtt gattcgaaga ctggggagcc agtggatgac 2760  
 aaggatgtca aagccaagta cgaaaaatac attcttgagc attccggtat tcgcctaatac 2820  
 gagcccgaaac tcttcaaagg atatgatccc aagaagaagc aactgcttca ggagattgtc 2880  
 attgaggaag atcttgagcc atttgaagcc tcaaaagaga ccgctgaaga gttcaagcgg 2940  
 gagcacggag agaaagtaga aatatttgag gttctcgagt ccggcgagta caccgtccgc 3000  
 ctgaagaagg gtgccaccct tctcatcccc aaagcactcc agttcgaccg tttggttgct 3060  
 ggtcagggtc ctaccggttg ggatgcaagg agatacggta tcccggagga cattatcgag 3120  
 caagttgatc ctgtgaccct ctttgtcctt gtctgactg ctgaagccat gctctccgcc 3180  
 ggtgttacgg atccttacga attctacaag tatgtccatt tgtctgaggt tggttaactgc 3240  
 attggatctg gtatcggagg tacacatgcc ctccgaggca tgtacaagga tcggtacctc 3300  
 gacaagcctc tgcagaaaga cattctccaa gaatccttca tcaatacgat gagtgccttg 3360  
 gtgaacatgt tgcttttgtc ttctacgggt cctattaaaa cacctgttgg tgcttgcgct 3420  
 accgctgtgg aatccgtcga cattgggtac gagacgatcg tggaaggcaa ggcgagagtc 3480  
 tgcttcgtcg gtggttttga tgacttccag gaagagggct cctatgagtt cgccaatatg 3540  
 aaagctacca gcaatgctga agacgaattc gcccatggtc gcacctca ggaaatgtcc 3600  
 agaccacta ctaccactcg tgcaggcttt atggaatctc aaggttgccg tatgcagctc 3660  
 atcatgagtg cccagctcgc ccttgacatg ggtgtacca tctacggaat catcgccctc 3720  
 accacgactg cactgacaa gattggtcgt tctgtgcctg caccgggtca aggtgtcctg 3780  
 accacggcac gcgaaaacc cggaagttc ccgtcgccct tgctggacat caaataccgc 3840  
 cgcagacaac tcgaactgcg caagaggcag attagagaat ggcaggagtc ggagcttttg 3900

tattcttcagg aggaggcaga ggcaattaaa gctcagaacc ccgcggactt tgttgtcgaa 3960  
gagtacttgc aagagcgagc tcagcatatc aaccgcgaag ccatccgaca agaaaaggat 4020  
gcccaattca gccttggtaa caacttctgg aaacaagact cgcgtattgc tcccccttcgt 4080  
ggcgcccttg ccacatgggg tctcactgtg gacgatatcg gtgttgcatc gttccacggc 4140  
acttccactg ttgcgaatga caagaacgaa tctgatgtta ttgccaaca aatgaagcat 4200  
ctcggacgca agaagggcaa cgcacttctt ggaattttcc agaaatacct taccggccat 4260  
ccaaagggcg cagctggcgc ttggatgttc aacgggtgtc tgcaagtcct ggacagcggc 4320  
ctggttccag gcaaccgtaa cgccgacaat gtcgacaagg ttatggagaa gttcgattac 4380  
atcgtttatc ctagccgcag tatccagacc gacggtatca aagctttctc tgttacttcg 4440  
tttggtttcg gtcagaaggg tgctcaggtc attgggtatc atccgaaata cctgtatgcc 4500  
actctagatc gcgcacaatt cgaagcatac agagccaagg tcgagactag acagaagaag 4560  
gcataccgct acttccacaa cggcctggtc aacaatagca tcttcgttgc caaaagcata 4620  
gctcctatga agcgaaactt caaagcaagg tcttcatgaa tcccgattac cgtgtggccg 4680  
cagacaggaa gctttcagag ttagactatc cacctaagcc ccctgttgct actgacgcag 4740  
gatctgaaag taccaaggct gtgattgagt ccctggcgaa ggctcacgcc accgagaact 4800  
cgaaaatcgg cgtcgatgtt gagtctatcg atagcatcaa tatctcaaact gagactttca 4860  
ttgagaggaa ttttacggcc agcgaacaac aatactgcc gaatgccccg tcgccgcagt 4920  
catcgtttgc ggggaagatgg agcgcaaaag aggctgtctt caagtccttg ggtgtctgca 4980  
gtaaagggtc tggggctccc ttgaaagaca tcgaaatcga gaatgactct aacggggcgc 5040  
ctactgttaa ggtaagatca ctcaacatgt ttcattgtca gttttacatt tgagctaacg 5100  
atctctagct ccatgggtgtt gcggccgaag ctgctaaaga agctgggtgtg aagcatatca 5160  
gtgtcagcat cagccacagt gacatgcagg ctgtcgcagt ggcaatctca cagttctaata 5220  
gtgtttgatg agcagaataa ttgttcaggc ttttgacctt gtatgcggca tatagatgtt 5280  
attgttggtg tttaatgcat ttgttgatgt cagttccaat tcagcataaa gtctcctgct 5340  
ctctagtgtt gccagtcagg tcttctaacg ggaatcgcg gtaaccttgc ctagcattgc 5400  
tctacaatcc atgtcctgaa gatcagtacc taggcaagag agagagtata gtcaaaccag 5460  
ggccaataac gcactttgtg agggtagctg cagattcttg gtcaaccata taccgaagac 5520

tatatactcg cttttctgtt aagaagctag ataaccgtag agtaccacaa atattgcttg 5580  
gattttcgtc gttgttcctt cctacatcta tttcaccgag tctacgtcta agcggacaga 5640  
tacgacattt acgagtacta agagctctaa taaatttttt atatctcaaa tagggccacag 5700  
ccaataccta tacagatggt atttacggct tccccagac gctcgacca aggggtcccca 5760  
gttcgctctc ggattcacct gatacctaac aagccgcttt cggcgccgtg attgccgccc 5820  
aagagactcg tcgaagacca ctttaagcta cgaataatcc tggggaggca caggacggtt 5880  
atctagtccg tcatctgaag aatctttctc ctgctgtagt cttttctgtg catcagatga 5940  
ggaagaatct gctgccccgt catcttcgcc cggcaccgat cgtgaccccg cgcggtacag 6000  
tgcagcctcg actctagtga tatgatctga caagtccttg ccggtttgag cgagagcaac 6060  
gagctccttc ttcaaatttg caaattgtgg atcacccttg accttctacc gactcctagc 6120  
catgatccca gcagccgcag tcccgggttt aatcgacttc tctttaatga gacccttttg 6180  
tcttgcccat tcgcgcata tctctcacat aacggtccat ggagcatcgg tgccaaccga 6240  
gtttggagtg gggtgactgc taatcaatgg atggcc 6276

<210> 4992  
<211> 4636  
<212> DNA  
<213> Aspergillus nidulans

<400> 4992

cctcttaata ctaggcattg cattggtctt cgcgccagca gcgttgacag ctaggagaaa 60  
gtttggtttt gagcttcttg attggttatt tagaggccca aagtcgaaga caattggggt 120  
cctgaactac aaactctaga gggccattca gattggattg aaacagttac cttctcacca 180  
gacggccggc tactggcatc tggctctaata gatacaacca tcaagctctg ggatcctgcc 240  
agcggtggtc tcaaacagac gttggagggc cattcaagtt cagtacagtc agtggccttc 300  
tcaccgaatg gccagctgct ggcatctggc tctagtata caaccatcaa gctctggaat 360  
tctgccagcg atagcctcaa gcatactatg gagggccatt cagatagggt tgaatcgggt 420  
gccttttcac caaatggcca ggtcctggca tcatgctctg aaaataacga ccaagctctg 480  
gaatcctgcc attggcagtc tcaagcacac gatagagggc cattcagatt gggctctgtc 540  
tgtagctttt tcaccagatg gtcagctcct tttatctggg tctgctgaga agaccatcaa 600

actctgggat tctgccactt gtggcctcaa gcacacttta gggggccatt caaattgggt 660  
 tctgccattg gtcttctcac cagacggctg gctactggca tctggctcta atgatgcaac 720  
 catcaagctc tgggacctc ccagcggtag cctcaagcat accctagagg gccattcgaa 780  
 taaaatcgag tccttggcat tctcaccaaa tggccagctg ctggcatctg gctctagtga 840  
 cgcaaccatt aagctctggg atactgccac tggtagcttc aggcacactc taaagggcca 900  
 ttcagatatg gttttatcag tggctctctc accagacagc cagctcctgg aatctggctc 960  
 tggtgataat actatcaagc tctgggatcc tgccactggc attctcaaac atagtatgag 1020  
 aactcctggc attgttagga gcattgaatt ctccatagag ctgcctcagc ttattaccaa 1080  
 cctgggaact ttagtattc aagcctggca tacaggctac ccatcaagat cttctggaaa 1140  
 aaagactgca gtctctgtac agcgaaatcg ttgggttgct attcaaggcc aaaaggaatt 1200  
 atggatccct ccgaatatc aacctatctc ttcagcagtc caagacagtt ctatagcgct 1260  
 tggctgcaaa aacggccagg tttgtattat atcattctct atatagcgaa cttgactgca 1320  
 ctcttctgaa cctagatctc ttattatggt taggtctttt gtgagaagaa agccttggtt 1380  
 gacataccat tgtatattta gtaactctca atgaagttat cgcgattttt catatttact 1440  
 ttgatctgct agtcaactcc agcaaaccta ctgagtccta gattatctat cgccataccg 1500  
 tcgagctccg tattttgtca gaacagacta gcatagtttg gcgtaaagat tcgaaacca 1560  
 atgtgggtat catgaataat gaaaccggtt ctgaaaatac ctgtaaaatt gtcattattag 1620  
 aaccaccgaa tacagacatc acagttttta aaccatcctc tgaccgttca tatgctacac 1680  
 tcacaacaga catgagaata cgtcttgcat cgcagcgatc gacgctgcag tctgacgcta 1740  
 tatgccta at aggtggtaac ttcaaaaaaa aaagatatct acgtcacgat ggacatccaa 1800  
 cttagccggc acatatccag acattgactc catctctcgc acttgatatga ccatggcaga 1860  
 tcagctccct tgaacaatg taactgcgcc acaggaggaa agcgcacatc ttctgcccga 1920  
 gaactcatgc cagacaatat tcggaggccg aaccgctagc ggctccgacg gtgcttccga 1980  
 agccgacggc gcagacggag ctccaggcac tcttcggccg cgccaaagtg cactgcctgc 2040  
 cgttggaacg ggacgcataa agtgggtcaac aagcagtgtc tgacggcttg tcaggcctag 2100  
 tgtaccaatg aagcctgcat agccgcttag cagcgcagct ataggatatg gacttgccac 2160  
 ggccgttgag ctcaggaagt ggacgcgact ggagcttcga ccgctgaaat cgcaatgggc 2220

ttgctccatg agttttttca gatgatttgg agattggggg cgagaactgg tcgtaatgag 2280  
 ccagtagtgt tcaccgtcta ccgatatctg atacgaatat attatgttga gcctcgtgtc 2340  
 acgtgccacg tgatctgtat ggcattgatct ctggcccctg gcctgatccc tcgaggagtt 2400  
 gtacattgaa gaagtgacaa ctatcgatcat caagatagag aatcaatcgt catatggcat 2460  
 cctatcctta gtaggctacg ttcgtgtagt tgatgcagct tccttctacc ctttccccctt 2520  
 tgagcattca taacaatata aaaccgtaat gagtgggcac gatttagagc gtagcattat 2580  
 atcgatattg tcgcgattct taccacagcc ctggctccag ttcttggtat tgagagtttt 2640  
 ggaactatag atatataccc ctgctgcagt agattgtccc tggaatttaa tactggcagt 2700  
 ccgttgagag agagcattga tagaagcgtt gagagagaac gtcccatcga caattcgtcg 2760  
 aaccggatga gtctacagtg cacaatcaac ctggcgcacg cttctaattc taccgtaagc 2820  
 tcagatattc cttcggtgtc aatgaccaag aatccatgga gattccattt aaatgagtct 2880  
 cactaccgcg gtttgcggtg ccgaccggtg accggtaggc gcagcaagac tccccacctg 2940  
 cttacggtgt tacaggcccc gcactctccg acaagcagag accaccagag accgagtatt 3000  
 taaccagtta atgatccagg tagacgttcc tgcttgaacc gccccgaatc caccttctcg 3060  
 cgatcaaact ctcgctttgc agcacgattc aaacatacgt cgatggcaaa cctcgtgaat 3120  
 cggcgccttg tcgccaacgc tctggcggtc ctcgctctca gtggaatcgg cgtgtatact 3180  
 gcctcgaatt gctggatcaa gaacgcgtcc gcagagtcgc gcagtgcaga accacagaag 3240  
 gtctttggtc gtggacctgc attcaagtcg ctccgtcttc atagctcaga gagcgtttagc 3300  
 gacaacacaa agcggctgcg gtttgagctt cctgggtggag agagttcaat aagtggactc 3360  
 agtctgactt gtgagtctgc ctctgggtc aattgtttgc ggtgctagac aaggaaagag 3420  
 aaagaggggg agaggggctaa tttggatctc acccagctgc tctccttacg ttctcgaggc 3480  
 cagaaggtag ctggctaccc gctgtgcgac cgtatactcc catcagcaaa ctgggtaagc 3540  
 aagacctccc agccggttct actcgcgctc tccgaccgga ttgaccaaac atctgactgg 3600  
 aaccatagat gaaccgggtt ttgtcgatct gctagtcaaa cggatatcca acggaagggc 3660  
 aagcacgcat ttgcatagct tgaagccagg cgacaacctt tttatcctcg catccattcc 3720  
 cggtttcaat tggaccccaa ataagttttc ccatgtctac ctcatcgccg gcggcgctgg 3780  
 gataacgcca atctaccagc tcgcgcaggg catcctcgac aatccggcgg acaagaccaa 3840

gatcaccgtg atattcggcg tcaatacggga gaaggatatg cttctgcgcg aggagtttga 3900  
tgcgatatcaa cgggcgtatc ctgaccggat cgatgttctc tataccgtca gtcggccggg 3960  
cagcgagttc aggccggctc caaacgtgcg atcaggttat gtgacaaggc aggtccttgc 4020  
ggaggtcatg gggggccctg acgaggccga tacgaagata tttgtttgcg gaccgcccgc 4080  
aatggagaag gcgctggttg ggggcggatt tggccagggc cagccagga ttttgcagca 4140  
gctgggctat ccgagagata ggatctaccg gttttaaaagc acgacaccgc tcaaagtttt 4200  
gtactataaa cgtctcttca actctttcaa tctcatatct ctttctggaa tcagacaaaa 4260  
aagcacgaca ttctgctcca cgtcattcgc ttactgctgg ggtagagctt gggcgatctc 4320  
tgatctctct gatctagtgt cagcaagctc gccacgttcc ggggtccgcg ggtccactc 4380  
cggctcgagc cgctccaagt ttgaaaacgg agttcatatc cgcaacaaga ctttttctaa 4440  
tcgactttgc cctccctgct caatatcgtg gaagttcaga gtttgactgc acaagttatc 4500  
ggcaggtatc ttgggcactg tgccttttta cgaatgttga cggcattgcg gtaccgggac 4560  
cggaaacacc cgttgctgct ggaatggaga gcctcaaaag ggtttatcgt ctttgtgggt 4620  
gtattcgcta ttaca 4636

<210> 4993  
<211> 4748  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 4993

tgcgttagta ggatgaggcg atgtaggat ttccgccctg tgaagcgcg ttctcgttcc 60  
agaggggtggc gaataagacg tcgttccagc ttaggtcgac gtctgggttc atgtcgtagg 120  
tgtacttgct gggcggattg ttttcatttt ctgcgttctt gattagtatt gcgtaaatat 180  
cgcttacaga accctatcct catttctggg gtccggacta gggtagttg agcaaacct 240  
ccgaaaaggg gaatggcaga ggcattctca ttttggata agatgagact gactcttgtc 300  
caattcgta tccaagtaaa ggtgaagttg tcaattcgtg tatagacagg atattgatct 360  
gtgttggttc cgctgtcaag ttgttcttgc tgcgaaccgg ggctcaggaa gaaatttgtc 420  
gcttgggcgt agcataggct agcggcgtag acgacgagaa aagggacgga ggacttcac 480  
ccctttacgc ttgtctgtct agtacgtagg agtacgaagt atgtggctca ggaggttgg 540

gggatgtag gaagggctgt taggaatcgg gccgtggacg cggttatgaa aggcgaccct 600  
 gagatggcac agcgtaaacc tccttcagga ggagaatcca ggaacttcga aaatgaaccc 660  
 gaggcctggg cttgccgttt ttattaagtt tattggcttg agtcagcctc agcgcaggtc 720  
 tctccacaga cctgccatgc aaatgcagat cggggggccgt gatgagtggg ttcgctgtat 780  
 ttacatagtg cctggcatcc ggagtctggc acctgctcag ccctcagctg gccttatttc 840  
 agggccctaa acggctcgca aggtgacgcg aaacctctgt cgtcatttgg cccccgaagt 900  
 tatatttcgc tttgcaggaa taagcctgaa acgagacagt gcaggatgaa ttgataggaa 960  
 ttgataggtc accgacttga cccgaccaat ttggagattc cggcatttag ctgcgctgat 1020  
 gggatgatct aaatcccaac ggcgcctggg attgattgtc ttagtaggcg cacatattat 1080  
 ttttgcagaa ctccgcgtca gacaagaacc caacgataat aaggacgaat ctgattttcg 1140  
 cgcgaccact cggctcgcgg aattccaatt atagcaggat ttataccgct gcacttgtgc 1200  
 caatcaagca atggaaataa tcgctggccg gccagtcgag gttgtgtgga ggccggcagta 1260  
 aagcgcgggc tgcagttggt ctgcctagt gtcagttagc gctttgattg gcaggtaagc 1320  
 taacgatcaa acgggttgcc tgaaactcga cgaacgatga ctgtgtatcg tcgcaatcag 1380  
 atggagaccg tcatgatgcc gatgcatggc taagtgtgga gcggggcctg aagtctgaaa 1440  
 gagctggagt agtgttggtc catccctggc gccggcctcg tcagcctttg aacctcacia 1500  
 ttcgacctca tgtcgacggc catcctcttc taatctccat ccccaacttc ttttcatttc 1560  
 aattcttccc catgcgatca cggactcgt ggctttctct taagccccgg aagaccgcgt 1620  
 ggggtggcgt ggccgccatt tgccctggcct gcactctctt gctgctcttt catcagtatg 1680  
 aggacatccc actgtctca tcctcaaacc taccagccac caaagtcttg gaaactcaga 1740  
 ctagtggtga tttcagaaac acgccaacca ctccaagcag cagcagcagc agcagcagta 1800  
 gtgccaccaa atacaacccc agcaatgccg tgcaaggcga tcgccgctgt caagcctttg 1860  
 ctgaccccg ccaacgtcgc ttcgtgatca aaaccggcgc tactgaagtc tacgagaaac 1920  
 tccccacgca gctccttacc aactcggct gcgtccaaga ctctctctc ttctccgacc 1980  
 ttgatgagca aattgggtccc taccgtcttc gcgacactct cggcgacttc aacgagactc 2040  
 tcaaggccac gctccctgat ttcgagctat accgtctgca gcatgagttc cgtcgtacaa 2100  
 accaggatat ggccccccta aaggcgagc atgcatggaa gctcgataaa tacaagttcc 2160

tgcataatggt ggaaaaggcg tggctggagc gcccggtcg cgattggtac tttttctttg 2220  
 agacggatac gtacattgtg tggactaatc tgggtgctttg gctgcaacgt atttcgccgc 2280  
 ctactgagcc gctatatctg ggctctgttg cgtactttat gaatgaccc tttgcgcacg 2340  
 gtggctccgg gattatgatt tccggttaagc tccttgagca gttcattggt gggggagccc 2400  
 gggctcgcca ataagtacga caatgctttt acgtcaaact gctgcggaga ctctgtgctc 2460  
 gcgaacacca tccgcgcgga tgctggacat ccaagtccag aatatgtttc ctcaaataca 2520  
 cggaagaag ccgactacgc tcccgttagg cccgacgcac tggtgccagc ccgtcgtgac 2580  
 aatgcaccac cctccaccgc cgggagcgaa cggcgatctt tgatttcgag caggctcggc 2640  
 cggacctaac tgtacttctc cccttccctc tttattccgc ctttctatca ccaatacata 2700  
 actaacaatt gtttttacgc acagcaacca ctaaccttcg ccgaactctc ccacctctct 2760  
 ttccccaacg ccacaatgct tgagttcgaa gaggactggg acaacctctc gaatatcggg 2820  
 attgaattcg ctggcgcgct cccccctcc ctggaagcct gccgtgacgc ctgcaagggc 2880  
 ttaaagcagt gctttcaatg gcggtatgat acagagggga aatgcgaggt gtcgacgcag 2940  
 gcgttccgca tcggcgggaa gagatggccg accaaggacg ggaaacgggt tttctcgggg 3000  
 tggaaacgtt atgtgataag gcaatggaga gaggagaatc cttgccatgg ggtaagtgg 3060  
 gttgatccga acccccctaa ttcattgatc taatttattg gagttggtgt ggttgatgct 3120  
 ggctgattgg gttttttttg gcactctttg ctgctcttat gggactggct ctttgagag 3180  
 gagcgcattt tcttggtttg cggcgcaggc gggacgattt gatatacaatt tctgtttatt 3240  
 atccctggga tatcgatct gtaacgacgt ctttatgggt gtctagatca gcgctgcgctc 3300  
 ttcattgatc tatcttggtt gtttgagaca gattagatat tctcatgccg gtatatagat 3360  
 agctatctta tgtacaacct gtaaatacat gcgtccaatc attcatgttc aacgcgtaat 3420  
 cgcggaaccg cgagtatgaa ataagtaaaa gctaaaggac cgatagtaga agaagaagaa 3480  
 ggagggaaaa aaaaaaatgg aaatcggtat gaagaggctg ctgtttcctt cggcgcaggc 3540  
 ggattttggc cttcttcccc accaacgtcg ttcttccacg acccggcata ctgatgtgat 3600  
 actaggtatg ggccctgatc cgtcggattg ccaccttgca gcgctgcaaa ggcggcttgt 3660  
 ggtaggacca agatatcacc gaggagcttc ggctctttca gctggcggat gtgttggttc 3720  
 gtgatatcct gaccggtctc ctgagagacg ctttgaagca acgccatcgt aatagcctgc 3780

gggccggtga cagccactac ctccccgacc atggctttcg tgacttgtga cagactgaca 3840  
 tggttttcaa ttgccgttgt cttgagctgt ttcacgacat actcgatgac attcttgaag 3900  
 tgtaggagat gcggcttggc cataatggtc cagctggtga actgccatcc gtcgaacttt 3960  
 atgccgcccc ccacgtttac ggggtcctcc gtatcctcgg tagacgttgc aggaatacac 4020  
 tccgacacag gaacttcgtc ttggacatcg agatcgctcc agataccgcc gtcggcgat 4080  
 agaatgagga cgcgaagaaa atcggctttg agaatgggca cttgcagggc catatatgtt 4140  
 tcgagcacgt ccggccaatc cgcatagttc tctcggacgt attggtcggc gctctcgtcg 4200  
 gtgaggagct catggcgcaa atgggggttc ttctcgagcc ataggtccat caacttctga 4260  
 gcatgctcgt tgacaccctt cggaccgcat ttatgccata tcttcgcggg gaatgtagga 4320  
 gaagcttcgt gtgcgagaag ggccttgatg cctgtagtgg tgtcctcgtc gggttgagat 4380  
 ttgagtccgt tcgcgggtgc ggggtgcgttt gcggtcttct cggcgttgat ggttttcgta 4440  
 gccgtcactg tggcagtgac agttacagta gcggaatcta ttttgagggt gatcgcggca 4500  
 ggtagagagg tttgtagtga catttcaagg gattcatttt tcgtgttgag acggatcact 4560  
 cggtgaaaaa ggtacatgtt gaagatgagc agaaagacga caatggccgc cacatagcga 4620  
 cttgagctca ccatgaggct cgccatgctg aaacgaagat atagaatgag aaaccagaac 4680  
 gaaaagaatt ataagagacc cagatgaaaa gagagtgcgg aagtagtgat tatatacaga 4740  
 gaggacgt 4748

<210> 4994  
 <211> 1174  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 4994

tactaaaggg agcatcttta ccaagcctaa gtaattagcc aacttcctgg atacctgcaa 60  
 ccattatatt gttgtttaat atattattag tagtaactaa gagaactttc ttcatgatat 120  
 tatactgcta aaggaccttg atcacagttt tactgagata agtaccagaa tatgagctat 180  
 ctagtagttc aaatccaaga agcacctcac agtaattcta atcttgatct aagaagtagc 240  
 cagtaactgc tataaatact tgggagaaga ggaatatcca gcagtctagt acaattaata 300  
 gattactccc agctagaagt ctattaagca tatttagctg gcttgtagta atattattat 360

caagaaggta ttaaatactg tatatagata ggatattaag ctgtaattta gtataccagg 420  
 taatttaaag gaggttataa aaggctaggt atttaataac ttggaataga agataggtag 480  
 ttgttattaa attaagtatc ttttagttaa aaagatactt attaaaatat atcagggact 540  
 attaggacta taaataagat tagtaataat atattatttc cttttattaa aaatatacca 600  
 tttcttgtaa tatctgatca actcccttct tagctacctt ctatacccgga caacctcctt 660  
 tagcaaaata ataatagaga gaagatattc cagtatactt tgcagctaga tatgcaagta 720  
 ttgctttata ctcccttatac ataaccttta gttgcctgct ttacttatat acaacttgct 780  
 caaatccttg ccagactata gcttttttct tactatccca atatatattt gactgccctt 840  
 cacattgctt gctatatcca gttataagct actacttaac aaattacttc caggagtcct 900  
 ctatatacagg gtatgtgtta tataaaacct atacttgctg gagtagaggc ctgatatata 960  
 ctagattttt tggggcacag gctggtaaag gtgggtggagg aaggaagcta gaatttgcct 1020  
 tatagagact tggctggctg cttgggagct ctgatatac tggaagacta tctagtagta 1080  
 tattctcagc atcaaagaga gagtctgaat agaaagaggt atataattaa gatattataa 1140  
 agtttgccag tagaaaagca tctctattag gggt 1174

<210> 4995  
 <211> 2191  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 4995

aaagtaaata atagtagata aataacaaag aaaggaaagg aagaaataat atggttatat 60  
 aaaaggaata atgaatgaaa gaaataaaga gagtaaaatg aaaaatgagc agagatgtaa 120  
 caataaaggt tataaagata gagaaagata aaaaagtagt agttaaaaga aataaaataa 180  
 tatataggaa acaagatagt gagataaaaag gagaaagtta aagtagtgaa tgatgaaatt 240  
 tgtaaaaaaa taatataatg aagaaaaatt aatgtataga tatagaagag aaataggata 300  
 tttcagatag aagaatgtgg ttatatgaaa taataaaagc acctaaagat gcaatcagag 360  
 tgcaagattg tgcgaaataa tgaaagagag acataggaag cccttccatt aaatatcact 420  
 gaaacaaacc aatgcaatgg tatgggaaaa taacaatcag aacaagtaat cataacaatg 480  
 cacaacacac aaacaccaat gccctcacat ttgacgacgg ccagtctgag tacacgccac 540

agctgctcga cctgctcagc agatactccg ctccgctac cttttttgtc ctccggcgatg 600  
 cagcggcgca gaaccaggc cttctgcaac gcatgcgcga cgaaggacat caagtcggcg 660  
 cacatacgta cgtccacca ccaagcttat ccagttaacc gtctttgtta cacgtccgct 720  
 tatcaatctt gtctctagat acgaccacgt ctccctcccc tcgctgggtt acgacggaat 780  
 cgctcccag atgacccgcc tggaggaggt catccgtcca gcgctcgggg tagcgccgc 840  
 gtacatgcgg ccgccgtacc tcgagactaa tgagcttggt ctccagggtga tgcgcgacct 900  
 cgattaccgt gtcactctcg caagcgtcga cacaaggac tatgagaacc aggatgcaga 960  
 cgcaatcatc aatacgagct ttcagctgtt tttagaccaa ctggatgctg gtggaaacat 1020  
 tgtgctggct catgatattc attattggac tgttgcgagt cttgcagaga ggatgttgca 1080  
 ggaggttaat gctcgagggt tgataggtaa gttgtgtctg tcttcgaaat gaacgggtag 1140  
 tgtttgctga tacgaaactc gcagctacga ctgttggtga ttgtctcggt gatggagaga 1200  
 ttgcgtggta tcattgagct ggctgcatct tcatagtga tagcatggtt tttcacctaa 1260  
 ctgtgaatag ttagggttgg tccgggtagg actcacttaa tgagcttagc atatcatg 1320  
 ggactagtat agcagtcaaa aggggtatat gtcccttaat acaataatct gaaatataat 1380  
 aaaaggacaa tcgataaatc cttggtgacc cttcccaccg tgagatctcc tgatatcatc 1440  
 ttcttcgtca ttctcgccag taactggccc tccgccgttg aaaccttgat tgttcttcga 1500  
 cgaggcctcg ccatttctag ggaagcaagg gaagctagtc gaaggtagca tatcatgcct 1560  
 cttccgggtc attaatgtat gcagcgcaag tcgagagctg tactgacatg gaacaatctt 1620  
 gaaggtagcc tagtcgcatt atactaatcg cggtagcaga caacctggcc tggatggtga 1680  
 tctgtcgacg atagggttg gactgtcaaa atctagcgtg atttacaatg tcatataggt 1740  
 aaacatcagg aagagcatgc caataatccc tgaaagcaca actctgaaca aaactatgag 1800  
 ttcgttgggc attagcttt atgaaatggc gactctaccg tagtacgacc gcgataaggt 1860  
 ctatagaact ttgaaatggt tgcacccgct tatagtatgt gaatggcttg atattcattc 1920  
 tacttcttat tgaaaagcta aaagaagaca cgtttttcta aggattggta ctcgaaagta 1980  
 ggtaataggt gctaacttag tacttatatt ggaatataga aaaaaatagg caaaaatata 2040  
 taagattgag ctctagcaag ctggtctgcg acaacatttc gccttctacg cagttgcagt 2100  
 agaagacact atatttccac taatagttgt aatgtgccta tttcattggg acagaatccc 2160

taatccatat atatcatatg agtacgaacc t

2191

<210> 4996

<211> 2857

<212> DNA

<213> Aspergillus nidulans

<400> 4996

gggatcacat cgcaaaagcc tacagttaca gcagaaatca ccttcgccga aacatcatca 60  
gctgaaaagg ctgtggccaa cttccacaat caaagggtag gtagacttct gctatagttg 120  
atttctcagc taactctggg aaggccgatg gtcggatcct ttcattccag ctttcccacc 180  
gcgatgcgtt cggccgtctg ataacaacgg gttcgccctt cgatgacc aa cggaacaag 240  
cagaccggaa tcggcgagcg caacggacgg cggatccagc agttcaggat ggtagatacg 300  
ggttcaacga gcaggctcaa cagcccctcg attccagaga ctctagatac aatggccgtg 360  
gtaacaatcg gaggggcaac aggggtagga ggaactttta cggaggtgac caaggcgaga 420  
accagggagc ccaaaagact ggccaatata gtgatgagat tatgacggat gtcctccac 480  
aggggtccaag gaacaaaagt aaccggcggc agtgatatat gcctatctgc acatatacctt 540  
tcatcacatg gtttggtgcc cgcgctgtgg gaagcctatc gcagcagcat actgcagagg 600  
ggtcggatta aacgcgactg cggatggcca gttaccgtgc gtatctgctc gtgtacattg 660  
ctagggcggg tgttgtgact ttcccgtctt atcaggtgcg gaattattat ctagtcctat 720  
gttgtgatat gtacgatttc tgtctcctcg attagccgag ttaccgggtgc tagatctgca 780  
cgagctttac catattggtg ccagatggcc actgatactt ttggagtcac agaacgggat 840  
gacagtttgg gaaggccgtg atagctggtt gatcactccg tgcttcgtac tatttatgat 900  
tgaagctatt cacaactttt aagcttctta tcgataagag cgagatcacg tgtgtgtggg 960  
gattgatgat cccggagaca tcaatatttc atcgcatgcc ttacagctt gcaaaggggtt 1020  
cgcataatat tatcagatac ggaacgcttc tgagtgttac agaaagttgt cggctctatt 1080  
aaatcacaag cactcgtgag cgcgaaagcg cgcaccgcca aaaatgaatt gtagcacaca 1140  
gcgcattgtc aaccagttct cgaggcagac tgcgcgacga agattcaata tacgatecgcg 1200  
acgatggaac tctacgtttg agactaggga atggtctacg ccccttgac gaaccctggc 1260  
aatgttatc aagacgacag ggccggtgcc cattgcggca tttatgcgcc aagtactcac 1320

ttctccagag gggggttatt acaccaccaa accaggaggg ggcggagagg tattcggaaa 1380  
 gaagggcgac tttgtcacat cgccggaaat atcgcaagta tttggggagt tagttggtat 1440  
 atggacaatt gcggaatgga tggcacaggg ggggaaaaag agtggagtgc agctcatgga 1500  
 gattgggcca ggggaagggga cattgatgga tgatatgttg cgagtacgtg catgcgtttc 1560  
 catctcttcc gaggtacttt aacacagtgt atgctcacta tggtagactt ttcgaaactt 1620  
 caaacctttc acgtcgagtc tcgaggcaat atatctggtg gaggctagcc ctactttgag 1680  
 agaggtccag aagcagctac tctgtggtaa tgccgttatg gaggaacag atatcggcca 1740  
 tcggtgtacg agcaagtact ttaacgtgcc cgtgatctgg gtggaagata tccggtgtt 1800  
 gcctcatggt gagtcttgcc cgggtgccaa taaagtcctt cggctgagcc ccatctgcag 1860  
 aggaagataa gacgccgttc atcttcgctc atgaattctt cgatgccctc ccaatccacg 1920  
 cttttgagtc ggttctctct caccggaaaa tgaacagcag gaacaggaga ttatgacacc 1980  
 cacaggccgg acgaaactcc agagaccacc aaaagcagca aacacacctc aatggcgcgga 2040  
 gctaattggtc actctgaacc cgaaagcagt tgacgagaac attaaagatg agccggagtt 2100  
 caaattaact ctagcgaaag catctactcc gtctctcctt gtcattcctg aaatctctga 2160  
 acggtaccgg gcccttaaat ccagcctgg gtccaccatc gaagtcagcc cagaaagccg 2220  
 catctacgca tcagatattg cgcgacgtat cggcgctcat cgcagcccc tcggaccgca 2280  
 gcggggcgca acgcatctgc accctctgca atcggaagc gcattccttc aggagctgcc 2340  
 ctgatcatgg attacgggac aatgtcgact gttccaatca actcgctccg cggcatccag 2400  
 aaccacaaaa ttgtccctgc actctcttcc cctggtcgag ttgatgtcag tgccgacgtg 2460  
 gactttacgt cgcttgctga ggcagccctg gaagctagcg agggcgtgga agttcacgga 2520  
 ccgtagagc aaggacactt cttacaggct atgggtatcg cggagcgaat gcagcaattg 2580  
 ctgagcactg tcaaggatga gaagaagcgc aagatcctgg aaactggatg gcaacgcctt 2640  
 gttgaaagag gcggtggtgg catgggtaag ctgtataaag tcatgactat catcccagag 2700  
 aatggcggca gacgccggcc agtggggttt ggaggaggag tcccactcta aggctctcga 2760  
 agttagcaat ctcgatgtaa tataatgtgc atatagtatc tttttatgac gacgatttga 2820  
 aatttatact ttgcattgat tcagtacaat tggcccc 2857

<210> 4997  
 <211> 2353  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4997

```

ctggccgcaa ttacaccctc actaaagggg tcttacacct gcgcgacgag gaaaagcagc 60
catggacgca gatcaacagg ctcttcactg agaaaacggg gatcaaggtc ggtagtacga 120
cacttagatt acgctggagt actatgaagg cgaattttgt ggggatcacg atcgaagatg 180
tatgtctggc taccctgaat cacaccacac cccggatagc aatagcctga ttgctgacat 240
caacactaac tggccgcagg aagcacgtct tctccggttg aaaaaggaga ttgaggacaa 300
attcgagcag gaaaagtggc atcgtatcat ggaggcgatt cagagcgacg gcggggagaa 360
gtatcctatt gccgtgctcc agaagaagtt caaggaattg agcaagaacg ctgctacatc 420
tgctcatgaa gcagcttttg ggactgatga tactaaggag tagatcggag cgaagagatt 480
ctacctgat gcagtttata taggagtttg tcttcgttcc tatcgtgtat ttcatttcgc 540
ttatttggat gccctgaaag attggctgaa gtctttggcg ttatcatgat cccggaaccc 600
ggatgacatt aacatcttag ggggtaagaa tcagttatgt catgatctgt ggatgggttc 660
agacacagag taggttgggc ttagaactcc cgtcgaggtg gtttctggtc cttgtcgcta 720
gctcgaacag ggatagcaga tattaatggg ttgacgcgcg gttcacttat tttttgtagt 780
attcgctcct atgtagccct attgaacgcc agcagaactc aatccaaaac ccacgaaccc 840
actgcaccaa cccagaacaa taaatggaga taagaggata gataaaagtc cgcgctgaga 900
cacataatcc ttgctttgta ccagacaaac aacgaagtgc tatagagtga accaatctac 960
gaagagaaga tatcgatata ttcacatcac aaaacactca actcctgctg caacctcttg 1020
gaactcaact cgtccatatt agaatcagta gagttatcgc tcgcctgtgc aacgatcggc 1080
gggcgaatct tcgtccccac aaaaccacgc ctatctcttc ctgtccggcc gcgtcccaac 1140
cagttatgct tgagatcttt gctgagtgtc tcaattcggt cctgcgcagt atcgttggtc 1200
tgcacacttg cgaggacact catgactgg agcatgcggc cgactgtctc ggtgatgacg 1260
tgagatgtat ctgatgcgtt gtttgccggg tggataatcg tgggccgttg agaaggggaa 1320
gagaaggatt ggaagatgag ttggtcgggg tttgaggagg tggttgaggt agcacgactg 1380
cggttgtatc ctggggattc cgaagaaaag ctgccggctg tatttaggaa ggtggatgat 1440

```

tgggaactgt aactgccaaa cccgccgtcg aaggatgcgg aggtcgtagg gcggccgtta 1500  
 ttgctattat tactgctttt cgttgttacg ctaagggcgg agttgccgag cttgatgctg 1560  
 tcaaggctca agcgggagaa ggtggctttg aggttatcgt agcggttgat gatgaccatg 1620  
 tcgcggaagg cgataagaac gaggttgccg acttcgagct cgcaaccggg atattcccca 1680  
 tctagcgcga ggctccagaa gttctttgct tctcgtatgt tcatgacgga gccacagcct 1740  
 ttgaattcaa gatctagggg taggaagacg gcttgaatga aaggggagaat ggtgccaaat 1800  
 actagcatcc agatctgcac gagatggggc accagcttat catccggtac gccgttgagg 1860  
 gtatggttca aggtggcaaa gccagcttcc agcagcccg ctagatcgtc gactatagct 1920  
 gtcggcgtag gcctctgcac gcagcgctga atatggatga tcactagttt gttcagatcc 1980  
 tcaattgcaa tgcgaacatc ttccgccgtcg aaaatcacca acagttttgc ttttaagaag 2040  
 tcccatgcat cttcaggact catattatga agaccaaagc cttgtaacgt ttcccgtaga 2100  
 acagcctcag tgaggaagcc cccagtactt cctaacgatg acggcccagc aaaccctgca 2160  
 gtagctgcc cagcgactgt cgaattcgcc aaccattccg gctgttcttc tgcaagcgtc 2220  
 ttctcttctt tcttcttctc gcggaggtcg cccaccatgt aatagatcca accgcctaca 2280  
 gacttgctga aagaagtagt agtagcactc ggggaagccg gagtgaaga gtatagtgc 2340  
 tgcggcgatt agg 2353

<210> 4998  
 <211> 2198  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4998

ctctccttg acttgcgata gcttaggccc gccctgagtt cgtagccat ccgcgtgcgc 60  
 ctcgatcgag ctactagac ccagcgttgt ttctgggggt tccgatcata gacatcttca 120  
 aatagtgacc tcgagagact gggccgaaaa cacccttaga ccccaaaatt gctgaacggt 180  
 tgctacgct gccattgcag ggcgaccact agcttttttg ccctaagccg gcagtttgcg 240  
 tacatcagcc aaaggctttg cgcggtgcag taccttaacg ggtctcatta gctttgtgaa 300  
 gtgtccgat cgaacgcgac aaggaggaac tggctcttcc aaaataccga atacgcaggt 360  
 gttcgaggaa ttgtggctgg ccctagattg agccaacatg agttctcaa ctctaggac 420

atccttacga cgtaagcgag atctatctag tccctctctt ttctgctcat agctaataac 480  
 ctgatgcctc tcccagaggg actgcgga gctcctaaag ttaaccagcc cttcattccc 540  
 gacacagcac cagtacgccg ctacacatg catggaaatc aatccccgca gccaacagtc 600  
 agcagccaga cacattcaat gtctcttgca aatccgggga gtccccacat ttcgtccgaa 660  
 aactgggaga ataaggaaca tcgagttccc atgtctacgc gcgatgtttg gacgcccgga 720  
 aaccgaccga gcctcttcag cagtatcttc gacaggggca agacagtcaa aacggcagac 780  
 ttctatgatc cttactttcc cttgaagttt attgacgttc ccaaattgtac gtggactgct 840  
 tcctattgtg tccctcgtct tctacacatc tgtaggggca aatggctaac ttgcaatcca 900  
 gcggatcata tctataaacg cgcccattat gggttacagt caggaattcc agatgaggta 960  
 gactttgcgc tatatcacct tgtccaaata tcaaatcagc gaggagacaa attcaagttt 1020  
 gagggttttc ctttgctcgc ggacaacctt atggaaaagg ccatggagat cacagagcta 1080  
 tgcactggtg tcaaatggga gctccagtac gatttcaggc aagccacaga tcgtgtcaat 1140  
 actctcaatg cgctacatgg taaccgagat atattggaca agatcaagca gatccccggtt 1200  
 attttacctg atgatacgct ggagacgtac gaattcaacc atcgccctccg aaacatcaag 1260  
 gaagccactt tgattatcag aaacatggtc cttctaccgg acaatgcatt ctacatcgca 1320  
 agctgcgcca gtgggttggt aagagacttc ttggtaatca tgctcaacat tccggatcaa 1380  
 ccgcggtga atgaactcaa aaacgacgct cttgatatcg cagaggaagt aacgaggctg 1440  
 atgaggactg accctgagga tccgctgtgg atctcgcttc tgaactgcct ttactctccg 1500  
 gatcgtgctc atgtagttcg tgcctctggt gctctcacgc atttctcaac cgagctagac 1560  
 gagccggagg ctaaccgggc aatggaaagc atatcgaaag agacgttgca gcagctatac 1620  
 cttctcacat taatcgacct ggacaaagac atcttgagtg gtgcactcga cttctggtat 1680  
 cagtacacac ttttccgca gaatttgag accatgatgg atgtgtttaa cttctcaact 1740  
 gttttcattc cccgcatgct tgcactttta acatacgagg gtcgaccaag caagagagaa 1800  
 actgtcttgc aggaggagaa ggtagcgccg gctccaaccg aaatcccacg ggtgcctcca 1860  
 gagctactga aagacctgat ggatatttct gagccggaac gtagctctcg ctggcttcgt 1920  
 tgctgcttcg tcgaggatgc cgagtgtgaa attacacaga ttgcgctctg gcaagcatat 1980  
 cagagtcggt ttgccgatcc tcgagttcct ggcggcggtg ttctccctgc tgcggagttt 2040

atcaagaacg tcagcacgac gtttacgaat ggcgaggcgc aggtaatcaa cggacctggt 2100  
 tcatcaacga ggttcatcat caagggcatt cggcccctgg aaaccgcata cacgttccag 2160  
 ggatttcctt acatctattg caaatggcaa gataacac 2198

<210> 4999  
 <211> 6733  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 4999

ttggtgctgt cctctattgc aaggtcagca gcaacatgaa cctgaacctg aacgaatgcg 60  
 cctactgaca agaatgcgtg ccagaccagc cttcctcaaa ctctgctggt gagccaattt 120  
 ctctctaga cgtcatggat gcctcgtgag aacccaacca acttctctcg cagttcggcg 180  
 aaactgtgaa caacataatc ggccgcacgt tgaaccccat caaccagaat ctctcatgtg 240  
 gaggtcatc tggaggtgag tttgaatgat ttccctgac acccactatt cttacatgcg 300  
 tccaggcgaa ggggcgttat cagccttgca cggtagctct gtcggcctag gcacagacat 360  
 aggtaacttt tcaactgtcaa gcagcctagt accttatcat gagagttaga gaactaataa 420  
 ctacaggtgg ttctgtgcgc attccggccg gtttctgtgg gatattctcg ctcaaaccaa 480  
 cccacaaccg cttttcttac cgggacgtgg ccaacgttgt aagttaacct cttgcctagt 540  
 caaaggagag caagcaagca gaagagccat attgatcaaa ccaactagatt cccgggcaaa 600  
 cgacctatgc gtcttctgtc ggggtactgg gtaacacgat tgaagccata catctagtcc 660  
 tcagctcgct catctcgact gagccctggc tccgagaccc gaatgttgcc tctctcccg 720  
 ggcgccagaa catagcagat gagaccctct cccgagcagg caaaggaggc caatgcactt 780  
 ctgctggaga caagcaacct ctaaaacttg gggttctctg gacagatgga gtcgtgaccc 840  
 ctaccccgcc tgtggcacga ggctgcgtt tgactgtcga cgcggtgaaa aaagcgggcc 900  
 acagggtagc cattcaactc gtctcagggg gttctcgaag agagccagtc tacatctata 960  
 ttccggatta ctgacaaagt cttttctcag gtcgtagact ggacgcccc ctcccaggca 1020  
 acggccaaaa gattccatgt gagcccgcg tcttatctcc cattcactgt cccggacagc 1080  
 ctgaagcaca aaaacagcta acccgagcat aaggtctcct ttctgaaagc cgatggcggc 1140  
 cagcacatca accgccagct cgatctatcc ggggagccat tgatcccca actcagggat 1200

tcattcactc ttcgagatcc aatgtctctc ctcaaatacc aggccctcac aatcgaggga 1260  
 cgggattacg aagcggctta ttcggattat tggaacgaga cggccaatgc cgaagacggt 1320  
 atgtcccttt atccatgccg accttccaaa gacttctgta gatggagacc caccaacata 1380  
 tccgatacga ttctcactag cgggttgag gacagatagt tgacgccgtg atcatgcccc 1440  
 tcgcaccaca tgcagcagtc ataccaggga aattttatca tacaggtaga ctaccacta 1500  
 gacgtccctt tcttcccgtc ttccttgctt tgaaccccc aagcgggatg cgcgcgtgag 1560  
 caattggagt gctgtacaat tattgacgaa ccatatggtc ctcgagtagc gtataccgag 1620  
 gccattaact tgctcgatta tagcactgtt gtcatacccc tcacgagagc agacaagaac 1680  
 caggatctag cggacccgga ctatgcgccg ttgaatgaac ttgacgcgaa gaattgggag 1740  
 gcttgtaagt gtctcgctatc gcgcgagaga ttgcgaagcc accgctgaca cctggtacct 1800  
 agatgatgcg gatatctacg atggcgcccc tgctcgggtg cagattgtcg cgagaaagta 1860  
 cgaagaggag aagatctggg cgatggggaa gctgggttac gactgccttc ttaacaggag 1920  
 gctcagtga aacacataca ctctatgga cggtaactt tgttctacgt cttgtttaag 1980  
 agatagggtg atcatagcaa aatactacga gtggcatgcc ttacctcata tgatagacta 2040  
 agcgcgagcc acaccagcac caccaccatg tccctctaga atgccaacaa tatccacca 2100  
 accatgctcc ctagcaatct ccagtgccgt tttctccatc ggactgcgca gctccaaatt 2160  
 cgccccagcc ataacgagca gtttcacaac ctcagcatgc ccgccttgac aggccaccat 2220  
 caacggcgtc cacccgagtg gatacgccct ctcaacctcg gcaccggcac cagcaccagc 2280  
 accaggatcc cgcaggtctc ggtctcccc ttacgctct ataattctcc gcgcccattc 2340  
 cccctccgca ggcgcctcg catcaaccag cagaatccgc acaatctcca catgccccgc 2400  
 cgcagccgca agtaacagcg gcgtctcatc atgtcgcgac ccaaccacga catcagcgcc 2460  
 atagcccagc aggagcctca cgcccatctc atcgccctta tagcagcaat gcataagcgg 2520  
 cgtccaatca tgggatgacc gcgactccgg gtccgcgcgc cagcgcaaaa gcgacgccat 2580  
 gatctccgtc tggccgtgct gggccgcctc agcaggggcg gccagtggt cggcgagac 2640  
 atggttggcg tctgccccgc gcgagagcag gagatccacg attggctggt tgttgctcgt 2700  
 cacggcgtgc atgagcgtgg tccagccttt gttgtcgacg gcgtcgatgt tggcgcccat 2760  
 ttcgagcaaa tgggttatga tggcttggtt tgaccgcgag gcggcgagca tgagcggagt 2820

gcgcccgtcg tgtgcttggc ttctgatgtc ggtgccgttg tggaggggtt gctttacgcc 2880  
 cgcgagatcg ttggcgaaga ctgaggacat taggtgggtc caggtggctg tggtcggggg 2940  
 ctgggatttc ttcacggagg aaggaaacgg agtggatcgt gctcctgcgg tctccttttg 3000  
 cgtctggctg tctggaaggt cctgtttcct ggacgcggcg gcctgctgcc gttcctgata 3060  
 cttggaatat atctcctgga agtctctcgc ttgcgcatg tcggctccgt gctggatgag 3120  
 gtagtgcgca atgccgtcat acccggcatg agcggctatg tcaagagcgg ttctgtagtc 3180  
 attgtcaact agattgacgt tggctttccg ctccacgaga atctccacta tatcctggct 3240  
 cccctggccg actgccagca tcaacgcggg tgcgccagt gcagagcggg tatcaatgac 3300  
 ctctgtgtg gacgccaacc tgtcgatggc tgtaacagc atgttaaggg cgtcgacatg 3360  
 tccggactct gcggcgtagt ggagaagcgt cttgttggcg ccgtcggaaa ttgcccggac 3420  
 tatcgttggg tgctgctcaa gggctctccag caggtagctg gcgtcgccct tctgtatacc 3480  
 ccttcgagcc ctctgaaatg gcgtatcggc gcgttgaatt gtatgccctg tggctgtggg 3540  
 atcatgttcc tgtattgcgt tataagtcgt cgaaaacccc cggtaactca ttcccccttc 3600  
 ttgcttccag ttcaaactcg gttcggtcac ggggcaaata ggtagcata ggtagacgta 3660  
 ccgttaagca atgcctaaac cagttccagc cccgcctcga cttgcgtaac agcctccatg 3720  
 cctggcacga gtcgcagaag gcctcccatg agcctggcat gccaaccacc ttccgcaccg 3780  
 tcgacggccg cggcaatggc aggccattgg acgctagccc atgcatgtac gttaaagtga 3840  
 tctcatacgt tccgtccggg atattgacct agtggccgac atcgcaacgg ccgcagtagc 3900  
 cctccttcgc gccccgtag ccacgtacct agccgggcgt aaaaaggctt cccccgaaca 3960  
 tcgactcttc acgccggggc acaaggctcg gatcttact gtcaaagtcc gccgccgctg 4020  
 gggtaaagtc gtgcggaggt tgccagccca gtgctagagc cggcgcagag tccaggatgt 4080  
 ggggtggtga ggctcctct tccagcgaag gcgccgcgag ggcttcccc atcgagtcga 4140  
 tcgtcgccgc ttctaacagt ttttgagcct ttctgctgcc cttgccttct atgccacctg 4200  
 catcgggggg ctcgacctcg tcgtcgtctt ctctgatccg aggtcatcg tatagccgag 4260  
 gatagtcctt aggtaaagca aacagcgcgga ggtgctccat gtgtcgcgcg atatggtttc 4320  
 tcaacttggt cggctggagg aggaattccc tctgggctcg tagtttgacg ttcaactttg 4380  
 tctggtagtt gcacagggga catgcagcgg ccgagatccg ctgcagtggc tggtttgcg 4440

gcgccaccag tgccctctttt ccgacacagc tgctatggaa ttcgttggcg tgcccttcaa 4500  
 aatcccgcga cgctggcagg gaagtatcgt cgcatagggg gcagagccat tgccgtcggt 4560  
 ggacttccat ctctgtggtg aaccactggt gccgagactc gaacagcggc tcggggcagt 4620  
 tagggaatgt gcatacgtac gatgcgaggt ccgaatggac gtgtttcctt gtgatatcag 4680  
 ttccgtttta gtccatagtg acatcggatt gattagggtc tttgctcctg acttacaccc 4740  
 atgacctgag actctcgata gtgatgattg tgaaacagaa cgggcactcg aagggattgc 4800  
 cgtccgctga acccgctggt ggccggggca gcaacatgtg ctctgtgtct agttccgacg 4860  
 aggatgacgc tgaataggat gtttcggatc cctcatctcg gccacgatct tcaccacggg 4920  
 tggcatgcga ttcttggtag aaagtcgttg cctcgggtctc ttcccagtc cctggtgcag 4980  
 atggtgtggg acggtgagag gagataggga tagagaagcc aggcacgcta gaatcaacct 5040  
 cggctctgtc tagttcgtgt tgatccctca atatcccgcc gccgggctcg gcagcagcag 5100  
 cagtggcaag gcgctgatga tgcgccttcc gatacgcaag ccactgtcgc ctctgggcgt 5160  
 tcgctctgcc cagecgtca atcaggggtc tggtctgggc tgcgtacggg aacacggctt 5220  
 ccacatgtgc aatgtcgaaa ctctgatcgt actgttttcc ctttgaggat cgtgcgaatt 5280  
 tggcccgcgc cgtggatcgg tggatcacga tagatagctt caggagactc gcgacggtgt 5340  
 cttggataat cagaacaagc tgggcagact ctgttactag gatgcgaggc tgttcgctct 5400  
 ttcgtgttct gctctgtgat gccgactcgg gttcagatcc cgagctgtcg ctttcgaagt 5460  
 cttccccagg attatcgctg tcttcgtagt accatgttcc ttgcactttt tctccggcga 5520  
 cgagcgggta cactataaat tccagaaagt cagttctgtg gtctcgaagg cgcacctcgc 5580  
 tggatgcaag agactcacgg tccgtcaacg cggcgagaag ctcggtgaga agcctcaaaa 5640  
 cctccatacg cagctcgctg ttccgcaggc ggtggtccag agacgacttc tctcgctgca 5700  
 gtgcgccccaa attggccgcc cacatgcgaa atcgtgcgaa cagatcgagg aagtcatgag 5760  
 cctcgaagcc ttctgggaga ggcgcccccg agagagtga cttgctccgg gtgcatgaga 5820  
 acctgtcca gcattgcgag gagagctctg ctatgattgg ggaatcctgt agagtcgcca 5880  
 tctactcgcc gcagcagaac gtagactttg acgcctagga atttaggcat aggcgccggg 5940  
 tcttctcagc ggtgggagcc tcaaccctc gtctctacc cctcttcttc ggacctggtc 6000  
 tcagccttgc ggccaatttc ttgtgcatgc agatgggcag ccgaggccag ccgaatccgt 6060

cttattggtt agaatggatt attcagtgtc cttggtgatt acctgatcct gtctccgtag 6120  
 agcagcgcca ttctgatggc gggtgggggtg gaatatggca tccaggtggg tgaaattacc 6180  
 taggtgttga tggatatatac taaggtaacgc ttcaaccttc caagcacaga aggagaaata 6240  
 aacgatcata accctgttct gcaaagtgtc aaagttactc gtataaatcg tctcatagaa 6300  
 tgcctaatact gattcgcggg gcattttgca agtataccta ttagctgttg taagctcttt 6360  
 accaactttt ggtattactc ttttcctgaa cattaccact gataaaatat tcaaattagg 6420  
 gtacttattc taataaacca cggaactata gaatagacag aaaagagcct agataatata 6480  
 tcaaagttaa gtaagaaaag atcagettac caaactacac ctctcggcaa cccagcgggc 6540  
 tgcgccgccc gtctctgggt cgggccataa tatccaggac ccaatggatt atttagaggt 6600  
 ccaaccaacc gagttcttgg gtttcagggc ggggtggggc gtgtttcgtg ggccgcgttt 6660  
 aacaagtcta tgaaatatag aggtgacctc gcgtgtttgg ccaccgccc gaaacaggat 6720  
 cgtagtgtat tcc 6733

<210> 5000  
 <211> 4898  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5000

ctctgcacgg atgtatgtca ttctaccgc cgtcagtcaa cccagacact ctacaagtaa 60  
 gagttgtatg gcaaagaaga acaaaccatt aatcgtgctt gttccacccc atgccttccc 120  
 agcatgatac tcgagtactc tcccacccgc atacatttgc tccgttgctg cataaagcta 180  
 gtaaatggcc gtgttcagcc ccgtactacc accgaacccc tcgacgctgg tgacattggg 240  
 gttttgccct cacctctacc ggcttcaact actacaacgc tgatatcgga tatttcagaa 300  
 aggcggtttg cgacggccaa ttctgtcggt ccgccgccag ttatgatgaa gtcgaggtga 360  
 tcttagctgg agggggatat ggctgccgca gttaaggcga ttgagaacgg tgcgtgggaa 420  
 gcagggactt taggtaagga aaccattatg cctctcggtc aatggaagtt tggcgtcagg 480  
 ggcgggttga atattggcgc tggggatttg agtagctgag atcggcatac gcacgttggt 540  
 ataaatggcc accagccaca atcctggcgg cgaagtaa atgttacattcc ccgcatcgga 600  
 ataacagtga tctgtggtcc tgttattgtc atcttgatat caagctttac gcggatagta 660

acattccggtt cggtttttatg cgttaagtac atcttcgaaa cccctacata atgaaagtta 720  
 ttctatctta cgaaatcctg tagactatac tacgataacc gtcccagat tcaggcagca 780  
 agagctagcc ccttgaagag ctaagttggt acgatttgcg ggcgatcatt tgtaagaaag 840  
 aagctgcggc aacggagttc agtcataga tggaacttca tggatagctc gcaaagtctg 900  
 aaacagcaga ctaccagcaa gcaacgacgg gaagggctta ggtagaattg caaaatacaa 960  
 gacccacac tcaggagacc acaagcgcca gagctaaggt gagttttgtg ctttgactcc 1020  
 gggagtaatg atacatattg cacttcgctg cgagattagt tcgttaactt ctcactctaa 1080  
 aacttacgga acacgacaaa tttgttctag aagtactgga aaggatattt taaaggaatt 1140  
 acgcgaatcc atagtttgcc tagaggcgga gacatacata gtgcaaacat cgcgtcgtct 1200  
 gcaggctcca cagccgcac ctcactctg agtttgatgt cgatcctcca actagagtgg 1260  
 ataatgcctc ggcgactagg ggtgttcctt atttctccac ttagaagggc aaagtatggc 1320  
 aatatggtgg ccgcaaattc cgcaacatgt ccgggcgtag tcgatccaag gttgcgagga 1380  
 cacgggtcat cgggctacat ataaggcaag ttttgccatg gtgattttag agctgattta 1440  
 ttgtgggttt ggagctatcc tgctagttgc cgctgctcta ttagaaagcc tgctcgcaa 1500  
 tttctctacc taacttagtt aaacgggtca gcattaatac tggggcagtg ctggaagggg 1560  
 cgcaacctaa gcatgccaag taactctcga tatctcgagt atctctccat atctcgggat 1620  
 ttgatgcgct tttggcgctg ttactggccc gctcgcttgc ttgatcgaca ttggggctga 1680  
 ggatgtccta cgcgaaacct ccacagcccc agcaagtatc aaagtgtgtg gggcacgaaa 1740  
 cgagactctg cctagatgta ttgaagcagg ttatgggacg ataggggttg cggctctgcc 1800  
 tataaaagga gccagtagag catgtctctt cggaatcaat tctatagata cagcatcacc 1860  
 tgatogaaga cagagaaatt gcgtattaaa catattcaca gtaacgtcga tatcgatcgc 1920  
 cagccttcaa aaacttccat ttacagacat ctttctgcga ttgtcattcc ggctcattct 1980  
 ttatcctcat aaatataatg tcccgtgcgc ttctccttgt ggttgcaacc atgtttgtat 2040  
 ccaggactct ggcacaggaa gttagatgtg atcagaaccc catcggtcct accttgacg 2100  
 aagcaaagtt caataagctg gtcgagacat ggcattgggc atttggcggc ggtggcgggt 2160  
 ctctaggcca gcctgatggt tttcatgtca ctcaccaggc tgtctgttgc gacggatggt 2220  
 gcttggcggc cagtaattcg gcagggtctg gatggagttg gaacgacgac gatttcacgg 2280

gtgccgccga cagattgaga gaagatggcg gcggccacag ccaatgtgag acccaactct 2340  
 gttctggtat tggctctgat atatactgca accttgagtt cctgaacagc gagtaccaa 2400  
 ctacggatgc tacttgcat ggagagtatc acggtgtgtt ggaagctttc ggagatactt 2460  
 gtgcaggggc tcctggatac aacggacctg agtggttagat ttatggcctt tctgcattga 2520  
 cgatgatatc tgtttctcgc ttgttgcata attgttgctt acatctgctc atcagtttac 2580  
 acctgaaatg tcaaatatag taaatctact ttgtactcca aatcctatct ctgtgttata 2640  
 ggaattgata gaggtcgagc taggatgatt gaacctacta tcattacctg gaagtcgcat 2700  
 ggattcaagg cacctgaatc aactaggatg ccaagaataa tagactaaga aggcagaaa 2760  
 acccttgctt gccgaaaagg aatcgttgaa gtgtcttagg tggctctgat tatcagttgc 2820  
 ggtcaatctt acctttaagc atttaagcct cctacatata aaattccttt cagcctgaag 2880  
 agtgtctccg ttaccatctc actgattctc ctcttgccca agcacatggg gtaaacagct 2940  
 ccgcgtggtc agcctgccat gacatcgcaa ttctactaaa gtcactaaaa tgtttctcgc 3000  
 actactgtca ctgtgaatac tgtttgacat caatatcaag ctgcatcatc tcccgacaaa 3060  
 attttgattg ctccagcga tactttatct gttgacggca cagtgcgatc ttacaatcc 3120  
 gatggtcggc tcggcacggg aactccccgc ttcctctgtg ggacttaggg tttacttgt 3180  
 tggagtccta caaaaccata cttacagagc ctcttctgcg ttgcttgaag ataccgcgaa 3240  
 cacaaggaga acgtagaaaag gcgttggcgt tggacaaagc atctttgcca atatctgtcc 3300  
 ttgtagctga tcttagatcc attgaagata tccctattat gtttgatgt gcaatgtaag 3360  
 gagtattagc cgggtgtttg gtcaccgcac ctatctcaag caaaaatcca aacttcatgt 3420  
 ggtctccttt gcactgcatg ttaaaatgat ggctgttac ttatgatccc ggcggttggg 3480  
 gttcaggaca tgggacaaac tggctattgc aaagacgttt ggttaatgcc gcgaccagga 3540  
 tttgtattgc cgactctcgc ggattttgac ttacgctgt aggatcccc tcagaactat 3600  
 aaaaaagaaa tgtcaatttg accagcctca tgagctactg acagattttg acccatgggc 3660  
 gaggcacacg cgccttcagt gcagcactgg ttggaacttc acgcacttct attagattag 3720  
 taccaatacc ccacgtcagc ccacaccgc cccccctctt tctcttatat cttccacttg 3780  
 ccattcttca ccactaacat aagatcttct cccaaacaag gtcaggaaaac tgtgtgtaat 3840  
 gctcaaaggg gaaagggcag aaggaagctg tatcaactac acggacgtag cctactaagg 3900

atcggatgcc atatgacgat tgattctcta tcttgttgac tatatatatc tcttctctct 3960  
 tgtatgtact ccgatatgaa gaggggtcag ttattaggcc gcttatatca cgtggcgtaa 4020  
 gtcaggcctc atcgtgtaca cctggtgtac ataatggtca catgatatgt tcataacaga 4080  
 aacaaagttg atcacaagaa tgacaaacaa tatggagaaa atggaagggc ccgagaatcc 4140  
 tcgaagcaga agaatgcgtt ccccttcctt ttcaaaaggc atcgtacaag ttcgaagagg 4200  
 tggaggtcat actgacaact ctttcacggg caggggcgaa cttaaaaagg cgatgagtca 4260  
 acatatgctg actctgaatt caatggattt gacgactccg agaaaggaga atggtaaagg 4320  
 gaggatgaga gcgaagattt agaccgtgaa caagattttg aagagcatga atataccatc 4380  
 cccggttgcc cggcacgaac ggtgaaaacg cggctcgtcc tgactgatga atgaatggac 4440  
 gaatccaggt ggataaaaaa attcctcgtt aaatgcacct gtgatgggtg aactgtcgcc 4500  
 actgctctag ccaagtatat tgatecgagag ggcattcgct tgaattctgg gagaagatgg 4560  
 aagctattag ttcgcaaagt tgcgctgtgg ctttccaagt cttcgatcga tacgggtcag 4620  
 tcaaggccaa gtacagatca tccggtgcaa agaggaaccg gtgtgtggga aacgagcttg 4680  
 atcatggttc ccttttcctc attgaggagc ttcattatgc agcgcttgaa ctacgtcgga 4740  
 aagggctggc gagaaatcgt gtctctactt ctgaacaaag ccagacagtt ctccaagat 4800  
 gaaaaggag atggcggaag ccaaaatctt aggtacggtt ccaatgaggc atttgagcga 4860  
 tcttggaact tacatgcctt ggtaagtcct ggaatagt 4898

<210> 5001  
 <211> 11843  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5001

gtagctttcc agttcatgca caaagtaggg ctagcaattc catacaacct tcgaagccat 60  
 cgccccaatc ctcttttagc ctgtaatgcg ccagcatata ctagttcaga ataatacagat 120  
 aaattcctcc aggcggaagc atgttgaaac attaggagta gcatacagcc gatctctaca 180  
 cgatatgctg ataaaacaaa tacctttgtt aaggtttaat tgaacacata attctttatc 240  
 tctcttgtct atctgcaata ctgctgaatt aagaagaata agtatctctc taagcccgtc 300  
 tatcttcatt ctctcaattt cttctcctcc aagaaagcct cctgctcctt tctactcttc 360

cctatatcca accaaacgcc caggaccccc gccgcgagca cgctaatagcc caccaggaag 420  
taaaacggca aacccgcatt cccactctcg ctgcgcatga taattgcact tgataccaag 480  
ggcccaatga aactgctcgt ctttccaaca atgctaaaga gggagaaaaa taagaactca 540  
tgtccgcgcg gtgtcacttc cgaaatcata atctgagaat agctgtacca gggacacaca 600  
aggaggccgt agtatgcttg atatgccag acctcccaag tgttatggaa gccgaatcgg 660  
ttagtgaaga tgccaatcat gcccagatg tcgagaacta ttatggctgc tacaatgagg 720  
tggaagagcg ttaaggggga aagggtgaaa cgggtctgga tacgccagaa ggcgtatatg 780  
ccgagcgcc tttggtttgg gagattaggt tctagggtta agagagtgga aagatgggat 840  
ggaaaggagg tacctgtgct gtaataccga cgatcagaag gtatgcgagc tgaaggggtg 900  
tgtaagcaac gatgttgttt tggagtgttg atatcactgt cacgggtgggtg ttaagagagt 960  
ccccgagtag gaagtatcct gttctactgt cagcctcgaa gcccggggag gttctggaaa 1020  
aaccatagac gacaaaactg accaacaaga taaagcaggc tctgcttcaa cctccatatt 1080  
tgcctttag ctacatagat ctgcttgagg ccagcaacaa ctatgctccg cccccagta 1140  
ccttgtcccg gtggtctttt ctcaaggaca aaccaaggca gcgaaacaag cagccaaaca 1200  
ccactcgcaa acgcaatcag cacactcagt cccagttat tatttgcttg gctatcatca 1260  
actctcaacc caaacataat cccacaata actgcaagga taaagatctc acccacagat 1320  
tgtacgtaga acgccatgtt cgccagttga ctgcgcttca ttgtatccgc gaaatcatc 1380  
tcatcacgag atatagaacc ggattgatac tcgtccgcct tggatttcat ttcgactgta 1440  
ttacgtgcaa gggccgggaa tgcagctgtc cagaatgtta gggttgtctg gtaggcgac 1500  
aagccgacaa tatataaccc cactgcgaca tgccatttct ctgcatcatg gacacctagc 1560  
cagccaaagc caattgcgta cgcgacaatt gatagaccga tgaggatatt tgggtctccag 1620  
gtgccgaagt ctgcgaagct gccgatgact agaaagacga gaacctggat ggcaaaagag 1680  
atgccgttgc agagaaggac gatgctttca atagagcgca atctgccggc gaaaaataac 1740  
tgtccattct cgtcggctcg ttgcgacagc agattctgga acgctgtagg tgcgaaatct 1800  
ggtcgttgat gatatgcgtc agtatgctaa gctttgccaa ggtgggtggct tgaggcggca 1860  
cccactgaac agggacaggc cattatttcc tatgtagtaa ctggtatggg tcagcgaggc 1920  
aacggtcccg ttggactgca tgaaatatca cgcacgcata ataagcccat atctccagtc 1980

gcgctgtccg gtagctctcg tcaaactggg cgggagccgt gggccgtttt gctgctgcat 2040  
 gtgctttggc atcgagttct tggacggcgg gatactggac cttctccata tctagagatg 2100  
 cgacgacagc catgttgagc ttgttaaagc aactgggtgac ttcttcgcga ggttcccgaa 2160  
 ataaataaag aatgaggttc tggagtcccc cacagaagat tcaacccttc ccggcacaag 2220  
 cgataggcta aatacgttgg cgctagaagt tctagactgg gtgaaaactt ggaatgtgac 2280  
 gcttgagtca atattggtgg ggtggaaagt gcgtatggaa tagatagaaa atttatttcg 2340  
 atttacaaaa tcatacaaag tcaagtatgt tgtacggagt atatactctt tatgtataca 2400  
 ttgaccgggt atccaagtct atacaacaga atcgcaatca taacttggcc tgcccactct 2460  
 caattgacga ccaactcgat tgcgtaagct ttccatatct ggteccattc aaccagtata 2520  
 gtttatcgcc attccagtcg acgagagggc tccagccttt cttcgtcaac tcgccttttag 2580  
 cctgtttgaa tgtgactccc gtggcaaccc tagtgcgaa tagttagaca ctcttgctat 2640  
 gttcttattc agacagggac atacttctct gtcagtcgaa caagccgtgg aatagcgtag 2700  
 gatggaacac ctttcttctt cagctccgca cggagcttac ccataaactc attggcagca 2760  
 gcctcggtgt gtcctcgag cgtgataccc gcggcgccag cctgtccatc ataagctccg 2820  
 agtctgacgc cgtacacaac ggcgtcgtaa actccaggaa tggcagaaat gtggtctcga 2880  
 atttcacccg cactgacgtt ctgcctcttc cagcggaatg tgtctccac ccggtcttgg 2940  
 aatttaatcc acccatccga gtcttgtaga aacaaatcac ccgtacgttg aaagaggtcc 3000  
 cccttctcaa atacgtcccc gaggagcttc ttctcagtcg cttcttcatt cttcaagtac 3060  
 tctgtgagta agccgcggtt tctgacacgg ccaatcgctt ctcttctct gccgactctc 3120  
 accctaacgc agaaccccg tttaggatcc cgatagggca tctctgtatc cggatcatat 3180  
 ttcacgatga cggtatcatc ctgaaaaac cgcttaattg ggcctgagaa cccgaccttg 3240  
 ccggctcccc acgatccaaa cccgaagttg tcgtatttcg caacaccctc ggttgagcgg 3300  
 tagaactcgc gaatctcagg aacattgaac cgctcgcgga agcgttccca aatatccctt 3360  
 cgcaggccat tgccagaagc gacaatgcag gcatggttct gatcataggg agaagcaggc 3420  
 gtagccataa ggtatctgca cagctctcca atataaagaa tccgagtagc tcttgagtcg 3480  
 tggacgtcct tccagaattt ggaagcagag aatttgcggc ggatgcagag tgtgcctgca 3540  
 tagcccacgg aagcacacag tccggtgaag taggctgtac catggaaaag cgggagcgag 3600

cagtagattc gtagagggaa gtatctcgac ggggtgcttga catcttgaga atgaggggtg 3660  
gatgttatca gagtcatcat attgcggatg gcgcatgcct tcggttttcc ggtagttcct 3720  
gacgtatata taagagctga tagatccgcg ggggttctct ttgcagctgt tagattggaa 3780  
gaggagtact gctgcaagtc cgcgggtgtg atcagatctg acgccgtaga gataccgtca 3840  
aaagaagaga tgtaaataga cagggtgaggc atgtctgagc acacaaattg tgcgagatcc 3900  
ggcgtagaga taatgagctt agagccggag acattaagac agtgggcgaa tgtatcatct 3960  
gcattcagat ctgtgagcct cgatcatata agaaactagt aagttcatac ctcgcagggt 4020  
aatatttata agagcagcaa cggctccaag ttttgaaaga gcataaataa tcgcgaccat 4080  
ctctggtgag ttggtagtaa agacagcgac aaagtcgcc a gtgctgacgc cccgctcgct 4140  
gagtagagca gccagtcggt ccgcaactac atgcgacgat tagtacgtac attccatcag 4200  
aacaacaga gggcaaaaaa agacatacga tctttcaact cagaatatgt ccatgatttc 4260  
ccttcaaacc agatagcttc ggttgagcca tgcttttcca cttctaccac tcgttgaagc 4320  
atcccataga ccgtaggcgt ctctcctaag tgagccatac gtcagccag acgtttccca 4380  
aattcccgt cactgcgcgt ggcagataaa tctgtagaaa tggagaattt ggcattccaga 4440  
taagcaccag ctgcgactga gagggcggat gctgctgcc cgacgggcac actgatttcg 4500  
gacaggagat ccatagttag cactaccagc gcgcaaagt aacaatatta gtcgtgcaat 4560  
cattcggcgg acgcgccgt tttatctgcc ttgggcctga agcactggat ctacttcgaa 4620  
gcagcaagct ggcgagacta gcgtaggcac ggaatctggg gacgggaact gggaccgggg 4680  
caatccccga cgcgtcgtcc tgggggcgag acggcagtc agcaacagt cagacccgat 4740  
tgaccaaggc cgatatgtca gaacgaacca ctgaccgaga gccagaatgt tttaaatttt 4800  
tgtgttagtg ccgactatac tccaagaaac aatgagcgtt tttttttgaa cagggggctg 4860  
tattatcccc tgctccccac atctcaacca taccatact ggtccccga tgttgtagcg 4920  
cagtaacacc accacatggt cattcaggca cctggtacca gctttatatg caccacagca 4980  
aatgcagact caactttcgg ggttatatct tccagacttg agaaagcccg tccttttagc 5040  
cctggaagag tttatgtaag gtgtagatca gtttcccagc gagtcaagac ctccactgtc 5100  
atcgtcgagt cccacgccga ggcagccgag gccacgagta atacggtatc ttacaccgtc 5160  
gttacactcg gcacctcat cggctgggcc cgatgaaggg acggtccctt caaattttca 5220

tgtttacggc	tcgagtatcg	tatctgcaaa	atcagagagg	aagaaatcat	ctacgaggaa	5280
tcattagcac	cgcttaccaa	cgacaaggcc	tgaacaagaa	gcaatgagca	ggagctgcag	5340
gttgctcgag	ccgaccgact	ctcggtgct	gtgtttctgg	cccacctccg	gtcgtcttag	5400
tctcgttctc	ggctgattac	tcttgatctt	ctcaagagcc	gcggctgatg	cactttcaaa	5460
ggggccccac	tgettccat	atcataccgt	ggggagcttc	tccgctcgac	tttttttccc	5520
cccaaacata	cactgcactc	tgacaatgtc	atcacccag	cagcgactct	cttctatttc	5580
aaaccagctc	tcgggctcga	gtgctgccgc	ctccagggag	aaactgttgg	ccaagaaccc	5640
tgacgatgtg	gtatgtttac	ttcgtattat	gggagaattc	tatgtctcac	gctttggggg	5700
caggtaatca	cgctcgctgt	tcgaacgccg	ctcaccaagg	cgagaaaggg	tggtctcaag	5760
gacactcgtc	ttgatgacct	gcttatctcg	ttactgacgg	tatgttggga	aatctcgcac	5820
ccgccaggtc	tgettgtata	gtctaattgg	tggaatagag	tgtgcgtgaa	aggtccaagc	5880
tggatccgaa	tctcgtcgaa	gatgtctgcg	tcggcaacac	tctctgccct	ggccaggcat	5940
atgttgccgc	ctctgccgtg	ctcgcagcag	gattccctat	aacaaccgct	gcatacagttg	6000
ccaaccgttt	ctgctcttct	ggattgctgg	cgattcagaa	catcgcaaac	cagatcattg	6060
ccggctcaat	tgatatcgga	attgcagtag	gtgctgagag	catgagcacc	aatgccgacg	6120
gtggcgcacc	ggacctgtcc	gaggcgatct	tgctgcaccc	catcgcgctc	caaaacacgc	6180
aacccatggg	ccagacatcc	gagaatgtgg	ccggtcagtt	cggtatcgcc	cgcgagcagc	6240
acgatcaatt	cgctgccaaa	agctatcaga	aggcggagcg	tgcccagaag	gcgggatggg	6300
tcgaggacga	gatcgteccc	gtcaagacgc	agatcaagga	ccccaaagact	ggcgaaatca	6360
aatccatcat	cgttgatagg	gatgacggta	tccgctatgg	cacaacagct	gagtctctgg	6420
ggaagattcg	ctctgcgttc	cctcagtggg	agccaagcaa	cactactggg	ggaaatgccg	6480
gtcaaatac	tgatggtgca	gcggcgcttg	tgctcatgaa	gcgatctcgt	gcacaggagc	6540
ttggccagcc	tattctaggc	aagtttgccg	gagcaaccgt	tgttggtttg	gaaccagga	6600
tcatgggaat	tggccctacc	tatgccattc	ccaagattct	ctcgaagttc	ggtttgacca	6660
acaatgaagt	cgacattttt	gaaatcaatg	aggcgtttgc	atcaatggta	catagtcccc	6720
ttgttggtgt	gtgcggggga	aaccactaat	actcgacagg	gcgtttactg	cgttcagaaa	6780
cttggtttgg	atgaggctaa	ggttaaccct	cgtggtgggtg	ctatgtaagg	cgtcagctcc	6840

ctgtaagaag attggttggt gactattata gtgccttcgg tcatccctc ggtgccacag 6900  
 gcgctcgaca ggttggtgact gccctatccg agttgcgacg aacgaacaaa agggtagccg 6960  
 tcacctccat gtgtgttgga acagtaagca ctatcttctc agaaatgcat caaccattca 7020  
 ctaacgggtct cgttgtaggg catgggtatg gctgggtatct ttgtttccga acattagctg 7080  
 catgatatga tgtgtataat ttgtatatac cataccacaa taaagtcgat tattctagac 7140  
 aagtaacaaa tcacttttag cccagatat tgtggaggtg gatggagatg agtgggggag 7200  
 gatccgtccg atcaagatag aactattgga agacagatat gcaactattc aagacatcaa 7260  
 aagtccaagc acagggcgat gccagttca tgcaagcatg tcccgtaatg tcatcaatag 7320  
 acagcagctt atcaagatga gcttggtcag ctacgtgcgc caagaggtgg cttcgattaa 7380  
 agatagctgg tccaatcacg tgcgccaagc cattcgtcaa ctccctccatg cgtcccátga 7440  
 caccatctcc atcttcattc tccgacgcct ctcatccctc cacggctgtg ttcaactcatc 7500  
 aaagtggaag cacgcttgat tcaacactta cagtctgcaa agtactactg gagcatactg 7560  
 tcaacctttc gaattttttt ccttctccaa cctgaaatca tgaagctctt atcgccccgc 7620  
 accgctttgc tcttctggc cccgctggct gtcactgcta cgctgcttc gttctttgga 7680  
 tacaccagc acgttattgc ggagggagca cccgtccggg gtgataaccc attggagtac 7740  
 tgttcagaac cctctggcga catttttagaa atcaattcgg tggacttggc accgaaccct 7800  
 cccaaggcgt gagtcaactga tttctgatta ttgcagcgtc ttacgctaa ctccccacc 7860  
 atagtggtag aactctcaag atcagggcgg caggcaatct gcatgagcga attgaagcgg 7920  
 gcgcctatgt cgtcctggaa gtcaaatacg gattgatcac cctccttagg gatacggccg 7980  
 acctgtgtgc gcagctcaca aatgttgact tgcaatgcc tctcgaagag gggccaatgg 8040  
 ttttgaccaa ggaggtcgac ttgccgtcac aaattcctcg ggtacgctca ttatattctc 8100  
 aaagctttaa gaatggctgg ctaactagca atcgcgatat agggctgtta cactgtccat 8160  
 gccgatgttt acaccaaaga caacaagcga atcacttgct tggatgctaa aaatatccag 8220  
 ttctaaggga tctgatctct tctctattac gctcacgact actcgtctca gtaatgccta 8280  
 cacgataagc aatttgcttt caactccatg atttgctcac gttctctcag catcttacct 8340  
 ctcttttcgt tcttcaagcc atattctctt cgttcttcgg ctgctacagg tctctgggtca 8400  
 catccattac acggtgcctg ccatatgtat gagggctata ttgttcgcgg cgtttgggac 8460

atgcttttatt tgtttctaca tggcctttgc tagcatagta cgcaacagca tctttacagt 8520  
tatgggtactc agcatttcga tgagttttta ttcccgtttt tcacttgga ctacgcttaa 8580  
gactctcctt gcgatccagc ttagctccct taatacagcc ttccgattgc tttatttact 8640  
ggttgccgca tgaattgtat tataattact agtatcagca atcactatgg gacgtagcca 8700  
tgatcttgcc tcaacagacg tgctgagcgc tcggagggat agaaactcga tgttaccttg 8760  
gatacaatac gattactcag gctgtccgac gaactgagcg catcttccc cctacagttt 8820  
ccacaaggtc gaaaccgagt gtcttgccag gatgtaaata tgctgaataa tatataacag 8880  
acgaacacat taacccaaat caatctatc accgaataat cgacgaactc gcttcaatac 8940  
gctgtctttc tcaggatcat atgggtgggc tttgcttgga atctcaagga cggcagggaa 9000  
ggcttcggag taagaatcga tgacgtgtcg gatgcgctct gcgatctgtg ctggtagtta 9060  
gtatattgca agccgtgtgg gaaatacttg aggacaagca atcgactaat aagcatacat 9120  
gttgattgat caggaggaca gcgatatcgt ttcgttctg tgtgaagttc tggaatgcgt 9180  
tttcgatagt tgagttctct gtctttgcgt caacgacgag gaaattccgc tgggaatccg 9240  
gagggcctgt gacgtgctat gcatggtgat tagtttatcg ttctaattt tgacgagtag 9300  
gacactcacc ccgatcccgg cgagaagaag gccagttacg gagctaagac gagggtttgg 9360  
ttagcgttta atctcgtctt tggagttcct ggtgagaggt tgagttactc ttcgtcgccg 9420  
atgacggcaa ggaactgtcg gtctgtgaag ttggacagcg cagttagtca agagttccct 9480  
gcagctggag tgaggggata ataccttgta agccacggca cctgccgcca tagtgattga 9540  
gctgagaggc gggggatgaa aggctcagcc actgtttcga gaagaagtcg agtctcgtat 9600  
accgcgcaag cagagcccga cagtgtgcaa tctgcagcgt tgctaccagt ggagcttgac 9660  
cttgatgtaa gcgtcgaatc tatgccacgg tccgccattg ccatccagaa cggtttttagt 9720  
tccacctggt tcagctcatt caccactgct agcgcggctt atataagccg agtccccca 9780  
tcttttttcg ccgtgctggt gttttgttta gtctactccc ccaagctggt tcaagctcag 9840  
aaggctgttc ttggccagtt ctacttaat ctgagcttta tactgcgtca cgctgtctaa 9900  
tatactgga tattgcttta tttttccttc ctagggttc ccgttatctg acatcaccat 9960  
gccgcgactt gtacgccgcc agccgttggc cgagcgtatc aagtcctact tgaacccgct 10020  
ggatttctg ctttggtat gggaggagat tgatgcgaat gattgggatc agtttgaaaa 10080

gaattgggcg acgacgttgg gtgtcatttt gaacctcgtg tttatggtcg cgagggccaa 10140  
 caccgcaca agtggcagtc aagcttttga cgatgtgttt ggcgaggaag tcggagtttc 10200  
 gtacctcagc tggcttgtag gtcgtgtgct tcaatcctga ttttaagagcg tagagactaa 10260  
 ttgccagcta ctaggcggcg ttcattgtcc acttctgat ctgcgcctcc gccctaaaca 10320  
 cttctacac cttccagcgc aaacggcatt atcgcatggt tgaagcctcg atcgacaaag 10380  
 cccccgtac gccgtctgct caccgtgttc gagttgattc tacaccctg acggcctcgc 10440  
 cgcttcgata ccttgccaat gcgctttccg ggtctgccga gtcgcgggct caccctgatg 10500  
 ccgagcgtga tgtttgggag attgcgggtt gggatccct gccgatttgc ctccgtctct 10560  
 tctgtctctt cagtctggg catgtcctta tctattggct ctttctccct acacagctct 10620  
 cggaccctcg ccctagtgtc acgatcgttc tggctcttgt ggtgacgact cttctgtcga 10680  
 ttcagatgtc attcctttcg tcgttcttcc agaggcaagc caaggattct cagatagttc 10740  
 acaaggaagt gttgagggag tacgacacaa aattcgtgca tcccagaacc cagccattga 10800  
 tgagagaggt cggaacccaa ttctccggtc ctaactcggc ctttgagaag tacaacaagg 10860  
 tcgagacgta cacaccagcc gtcgtcatta acagaggatt caagacgagc cctaaccgga 10920  
 attacttaag gcatatcgat cctgatggga atacctctcg gaatagctcc ttcgcttcta 10980  
 cgccatcgag accacctcac ctagtgcaaa ctccaaatca tttgcgggac gcttctccag 11040  
 ccatcaaagc tccgctagct tctattcgcc agccccaatt ccgaccgacc ccatctcgca 11100  
 caggtgatgg tggtagtctc ggagtatact cacacgcaa ttcgcctttg cggaatcta 11160  
 cgcccggcaa ctttgatcgc cgtctgcata acagtgggga tttcttttat cgagaaagaa 11220  
 gtgtacggcc ttctagtctt ctcaaaaaga gcaacatct cgctgtcca agtccagtta 11280  
 ctccagggac cagcaggagt agcctgcgtc gtgagactgg gcacttctag ttgaagaaaa 11340  
 cggaagggg aaatcgatat tgcaccttaa gctctcttct ttgaagtgat aatggccctt 11400  
 gcatgcacgg agtactacgt gatctggctc tggcctcgt ttacgtatac cgctctcatg 11460  
 tgacggcgat gccatcgta aaacgaggaa tgtgacttgg aaagctcgct ctagccatcg 11520  
 taatatgcag tttatgtttg gcgccattac ttgcaaggct aaaaccagcg ttgacgcctg 11580  
 ggattggaca gtcacctggt ttaaaagtgg ttagagcacc atgcctctgg aagacatgga 11640  
 tcggcgccgc catgatgcac cttccatttg agccaatatg gtcccatgat gtagcttcca 11700

tttcaggcac gcatcaaadc ttaagatggg cattacaccc ctgtttggcg gcacattctc 11760  
aaccaggaaa gcaaaccgga gtgcattcca aacaccccac cagcctcttg acgtgaccgc 11820  
gcacaagaat gttaggtttg cta 11843

<210> 5002  
<211> 3181  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 5002

cgcaacgcc a ctggaatcaa acgtacacct aaagcttgct gtctctgagt ggccagttgt 60  
agttgttgcg gggttcacag ttggctgcaa gcctccgtcg gcgatattct gaacacttgc 120  
catgtctgag gagttgtttt ggttgagtga cgggtcaatt gacgagttgt actcgtagcg 180  
atcagtggag gtagacggag attgcgaagg ggcgaagggc tgagacgagg ccggtacgta 240  
gccaggaggg gcagcaggat acgacgattg ttgaggagaa ggatcctgcg ggttaactac 300  
cagcgacggc tgcggatttg gggcaggctg tatcgagag ggtgttggtt gcttgaagac 360  
tgggtcgtag cctaaacatt cacgcttgct cttaacgcag ttgcggcaga cagggtgtcc 420  
ttcgtcacac taacgggagt gttgtcaatg gcgaattcaa gatgaagcgc aagtgaata 480  
aagcgtaatg aaaaaggga gccgaataag tacggcaaca agaaggggta ttagaaaggt 540  
gggcatggga agtcggggag cgtcaacaag cgacaataaa tggcgggggt tccggtggtg 600  
ggctggacgc gagccgaaga ttttggcgac gcaagcgaag caacacaacg caacctccaa 660  
cctcgcgcac ttcacacaca ccaactgcc ttgctttgca ttgcaaatag tctatgcaat 720  
atgtttttct ataaattgtt tacgtacctt gatgcgtcgc ttgcgacatg tcaaacaccc 780  
agttttcgct cgccgcttca cttctttctt gtgctgctc gacaacattt tgttcgcac 840  
gccctgcagc tgataatgca tctgaccgcc tgagttcatt gacggatatc ccgcatgta 900  
ctgactgacc gaagacatcg gaggcattgg cgatccaatg ggagcttgcg gaatttgca 960  
aggctggcct tgcataaggag gattcgtatg aggcggcgag gcactatgat ggttggtata 1020  
catgtccagg ggctgttggg actgctgatg cggttgctgg tgctgctgtt ggggcaatgg 1080  
tgctgtgac tgtggcgctc gcgtatgctg ttgtggtgaa tagtggtgtt gtgccggctg 1140  
ctgttgctca taatgttggg gttgctgagc tggcgcgtcc gaatgcactc cgttcgaaga 1200

tgccgggggttt tgaggaacat ggggtggaaga agacccatgc tgttctgtag tctgatcgtg 1260  
 tgttatcgac ccattttcac ctaagccatg cccagccgtc tcctcgtcga acctgtcaaa 1320  
 tgaaaagtga gtatcgggtgc cgtgtagatc atccatagcg ggcatagtcg tgtctagcgg 1380  
 tggtaaggag gtgtcaatag gcggtaatgc tggtatcgtc gagtctattg gcggcagcga 1440  
 catatctata gctggaaggg cagtatcatc ggtcggtaag cttttgtcaa tcggcggaag 1500  
 agaatcgtca atggccgaac ttgaaggctc atccgtatgc gtcttggaag gcattgtggg 1560  
 agcatcagcg gccagctcag aggccggctc agctgccaac tgccggctctc gcggaggctg 1620  
 agcctgctgt gttgtatctg ccatcaagct tgccaatgct cttccagact atcccaaggc 1680  
 aagccgtgga ttttttgact caatcgggtat tcagagcgca gcccactca acaacagaaa 1740  
 cgttcgataa tcgagaccag gccgttgctc aacgaggttt cacgcgacag tgactatgcc 1800  
 gcctagtcct gcactctcag taaagcagtt agtggtgaaga tctcagtaac aaatatgtgt 1860  
 agtctatgtt tctcgagaaa atcgcgtaag ccggcgtgcg aaaaggcatg gaaataatcc 1920  
 atgtacgttg ggatcggaga attgttcgag aagtgcgacg accgcgggtca agtccatctg 1980  
 cacatgatta tgggcgcagc aaccagagcc cgcccagccg tcgaataaag aatccttatg 2040  
 accagagcac attgaacagt ccataagctc gataattctt cctcatatc tggattgact 2100  
 ttgatcgcga ccgcgagaag gccgacgtta gattttcttt gcgcagaaaa cctccctcc 2160  
 ttctgcggtg tgatggaacc ggacggcgaa agaactgaca tttttgggta cccagaaagc 2220  
 caccaaattg atatggaaca atgcgtggac gggggaatgt atctcgaatc tcaacctcga 2280  
 agtcggggaa aggtcggggg aaaagaggaa acaggccgtt cgaggctctt ttactcacct 2340  
 tgtactggtc agataagcga aaagaagcga gccgaataac tattccacca ggattcagtc 2400  
 ttcggcatca agcaggcacc gcaactggcg agtgaagagg acgggggggt gttgcgacga 2460  
 aggattgttg cgcgatgaaa agaggagaga acctgaagat taaaagattg gagcttgtcc 2520  
 gggtcgcgag atgaagagat caaccaccaa attcctactg tggcaacatc aacatacata 2580  
 tatactactc tctacagccg cgactagaaa ttatcctatt tgactttcaa ctcaaatcat 2640  
 ccccgtttat tttcttcgtc agtgagttgc ggcttaatga atactcgact atttttat 2700  
 tttcattgct tttggcttgc gctttttgaa taccacgccg gggccggcag ctgatgattc 2760  
 cttctccttc actggcactt catcactcgg gttatcctac cttttggctt tgtactcctt 2820

ctgcgctcgt agacttctct gacccgacca ccgggggttt cttacttttt tggaaaaacc 2880  
cacaggcatt atataatttt cttattttcg gccagggtacc gccgggtgcc accccatcct 2940  
aatacaaacc gtagctccct ttgggtttttt tttctggtaa tctggcggtt tcgttcgcc 3000  
cagggaggct tttctctttt cccccgggt ttattttttag acgttggtgcc cgcaggcata 3060  
ttcgacttcg agtgaatcca ttcgggtgctc tggttggttaa caacgcctgg gggggtgtag 3120  
aatttttatt tatattcccc ccgcaaacgt acattttattg tgttttaatc ttacacattt 3180  
g 3181

<210> 5003  
<211> 2254  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 5003  
actcagcgta ggctttaccc agaccgtaca tcggcttga ttgtgagaca tgcctttgca 60  
ccaccgcaac tgagagtcga tggcatgctc gggactgtct tccggcttgc agcgttaca 120  
ggcctttaac cctgcctctt cggcctggga cggcgtatcg tagaacacaa cattagcgcg 180  
ccgtgctagc cgagcggcac atgagggccg acagtagatt cttgttgta tgacggcgta 240  
gacgaatgag gcgattgggt cgcgggtgac tactgcttgc cagcggctag ctgtggaggt 300  
tgacggggag ccaagtttgg ggaggcgtga gattatctgg ggtgcagggtg tttgtgacat 360  
cgctaagcgc gtgaaagtgt gataagcggg atgtagagtt atcattagga gtatttgagc 420  
agtgaggttt caacacctta ataagtgatg agactcatga gactcgtatt cctgaaatcg 480  
gaaccaccac gctgattggg tactttgaga gcaacttcca atgttcgaaa atccgacgta 540  
tcaatgccat ttcaaagaca cataggcgcc agcaagcttt gtgttaaaat cacgaggaag 600  
gagcagggtg ttcttgtagt gagatttagt ccaactctta agtaggggtcg gccttatcta 660  
gcgggagtta tgcggagtgc ctagtataac aattccccgg atacactaca atgtaaatca 720  
tcagccctgg tcgaaaaaga aaaaaaagaa aaccttatag cggatttgtt ttatctcgag 780  
attatctoga aaatgcgtgg agttagctga ccatacgaga ccaacgatat cagaaggcta 840  
ggggcatcct cgccaatatt attgctagaa cagttgtatg tttgagtggg aagcatgaac 900  
tctgtacagc ctggcgcaga tttttccgca gaggttgtcc atgatataga atggaaaaac 960

tttatttaat ttgattacc gccgtgctac ccatactta gactgtgata ccctataccg 1020  
 tgaaatgtac ccaggacatg aggttttgta tcctgattat tcaaccaat cgcttttgat 1080  
 cgtcaatgaa attgtttgtg ggccacaacc ttgattggct aaggacgct ccgcagtcgc 1140  
 ctaggtacat gtctcatagc aaaaagcctt ttcaaccgt cacaagaaa aaaactccat 1200  
 atgatatcac gtttaatcct tggctctctg ggtaccacgg agcagaccag ttctccgggc 1260  
 ggcaatgaga cccgcttttt gaccgtgggc ggcgtagcgg gagatggctg aggccttacc 1320  
 gatgtgctgg tggttaccac caccgtgagg ctgtaaagaa ttcattgctg atataatcca 1380  
 gattccagct taagactggg aaaaagagcc ttactgac aacgggggtc atggcaacac 1440  
 cagagtctt gggccagctg ttgcgttga cagcaaactt gtgcttggca cgagaagcct 1500  
 ctgttcacag atcattagcg gttgttctcc aacaattgcc ccagcctgcg tcagctaattg 1560  
 ggcacaaatc cgaataacat actcaggaga ggcttgctcg tacgaccacc accagcaacg 1620  
 ataccgatca tgccacgagc agtggtcttg atgaccttct tagcgccgga ggggagcttg 1680  
 acacgagtct tgccctcacc ggggttggtg ccgatgacgg taacatagtt tccagaggta 1740  
 cgaccaagag cccacaggtc accagccttc tcctcgacgt tggagatgac ggtaccttcg 1800  
 gggacggagg cgaggggaag gatgtttccg atggtcagag cggcgttctt tccagcgtag 1860  
 atgaattggc cgggtgtacat gccctcgctg gcgatcaagg tctcggatgat gtgcttgaac 1920  
 ttgtaagggg ggcggaactg gaccttagcg agaggagcac cagcaccagc gtcgtgaatt 1980  
 aatttcttta acaacaccgg agtgatcca tgctgctcag cgtagtcgag gtcgctatc 2040  
 tgggcggggg ccatgttcaa aagggtgtga gccgatgaat aaagtttttt tatcagcaat 2100  
 cttgttccct atcaatatta ttcacgtcaa gcggtaccct ggtcgcactc actagaaatg 2160  
 gagcctcggc cctacctctg gaaacaaaac acgccagcca tgacggctct atgtaacgaa 2220  
 ccgggcgggt aggatttaag caaaactgcc cgcc 2254

<210> 5004  
 <211> 3176  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5004

cttttgctcg gcagtggtac gagacttgaa tgttttgacg accctctaag aacagtctct 60

tgatgggtcaa taagccgtag ccaagcatcg acatcggttag ggcgttctcc aacaacccgt 120  
 gaaagttcta catttcgctg tttgatatcc caatccgggt cttgtcgaac agtctcctcg 180  
 ccaactcaact cggaatctgt caacggctct aggtcgtttag gcaggccctc ctcaggcttt 240  
 agtttgccat gaatcgaccg gtacccatat ttctcatcct ccgcatctga cccgctagcg 300  
 aatccatcgt gttgcctccg ctgagagtca gacaacggta caaagtcctt cgaggctgcg 360  
 attgggtcag tgcgaaacga ggtcggtcgg actcgagta atctcggccg tgatttctcc 420  
 gatttcgata ataatttctt cgacctcggt ttcgaggagt cgggtcggtat ttgttcagat 480  
 ctcacgacta tctcattctc gcaatgggtt cgcggtcgat tcgatagttt ggaggaagtt 540  
 caagtacacg accttggtcca atgcgggttat agtgggggac gctttaacga tgtatcgctc 600  
 cgtacccag gtatatattgt ccccttgggg tcgatcacat agatgtctat taaatccctt 660  
 gtcagggtccc ctgtcggatc cctcaaaaaca tcaactcaacg taggcgtagg tttgcgcacg 720  
 tgctccttat cgcgacgtct gatctccttc cacagatggc gggagtcctt gcaatcacc 780  
 cttegggtcgc tggaccgcga ggggccccta tgttcgctgg tacgctttga gcggtgtttt 840  
 gacagatgcc tagatttctc ctcagactca actcgctcgc gactggaggg ctcggaagac 900  
 cgatcggtat cgggcggagc tggtcgaggc ttgaagctgg cgaatcgcg aatgcttttc 960  
 ttttcctgga acggcgtcaa taaaaaaaaa taataataag tccgcttctg aacgtacctg 1020  
 cgagccagat gtagccatgc tcttgacgt gaggcattgt tgggcgtaga ctatcttaag 1080  
 agttgtagat aggcagctgg agggtagcct ggaaaaactc cgctcccgcg ttccgccttt 1140  
 ccttctgga ctaaaaaaaaa agttgctggac tttaaagatt tccgctcgag cattcctttc 1200  
 aaccgcacat agtcgtata ctgcctttga attcttatcg agggatggac acattgctcg 1260  
 aattttaaaa aggatttgcc cctcgaaaat ggcgtcttcc ctgcgccgc agttgtagaa 1320  
 attgcgcaa ccccccaacc agttgaacct caaggcacag agacctgcgc tttcaaagtt 1380  
 tttgatattt gacaagcggg tcgccgggtc caaggatttt aatacgatat ccaatatttg 1440  
 ctatgacggt ttccgagaat tatgtcagtt ggatttccgg ttgcgcagtt ttaagcgctc 1500  
 gatcttcagc gagcaaagca aggtccaaga ccggacggag atgaatgtgg agcagaacag 1560  
 aaagctggat tctgtattag aggcctttttt ggcgcttgtc ggtgggagac tgcttttgag 1620  
 cccggccgta aaggctgttg agtggtcat taggcgcttt cggtagctg acccggttag 1680

aattgaactt ttctgatggc taatggacat acaggggtaca cgagtacaac acccgcttta 1740  
ctatcctcac atttttacca tactattcca caccggtatt cctgaaccta ctgctattc 1800  
tcccggacga ccttccgtca gcgctcaagg tgctgattcc ctataaacga agcgcgatca 1860  
atcctgttcg ccaggccctc gtgcagaacg ccatctctaa tcgagacctc ataactactc 1920  
tcaacaacta tgccttcaa gtttgccgtc aacgggcccc ccatcatgcy ctgttagctt 1980  
tctgggcygg tataattacg gagggcggtg cagggatgtt ggattcctcc cggctctggtc 2040  
gtcgaaatgt tgaaaagcaa aagcacgacg atattatcct ccagatcctc ccagtcctta 2100  
atgacggatt cgccatgaag gacgtttccg aacttgtgat tgggtgctac atggtttgcy 2160  
ttgtgctcgc acagaaggct gaactccaag accgggtttt ggacgggttg atggaggctg 2220  
tcacaggatc ttggacggag gagactatga gttccggact tatctgcgat acagttctag 2280  
cacaacagaa gcctgacct atattgccga agcgggtgtt caaggcgatc gtcgcatgaa 2340  
ggacccttg aagcagttgg ccgatatctc aacagagtac aaaacctccc aactgcttct 2400  
tggtctagtt gctggctgcy ttgacagctt gtcaacccaa aaagattccg cacggctgga 2460  
actgctgtct tcgatgttca agagccagct cttaaagac gccgacacgg caaaggccat 2520  
gaccttcgtt ctccaggcgc caagcgtgtt tgggtggcagc atttctctgg atactcaaac 2580  
ccaaattgca gaaattgttc aacatttcag ccggtctagc tcattgcagc cggctctcca 2640  
gaaggtgatc gacgagtcac ccatcgatct cagcgtgata gagtacaact tgcagactgt 2700  
tattgagtct gtgcccgtca acaaggccat cgaagacgct gaaatggagg atgcagacaa 2760  
aacggaaaca gcaacggatg gttacgactc agccctcgag tccttagcaa aagagagctc 2820  
attcagcacc tcgtttctca ctgcgcagtc cattccagtc ttcgataagc ttgttcagac 2880  
tttcgcattg tctgctggct ccccgagag ggtcagcgtt ttcggcgagc tgccagttct 2940  
atgcaaagct aatgccacaa catcacccca gtttctttcc tttttgtcc gagttttcac 3000  
cgggatgtac cccgctgggt tcaaagcagc tgcattgaag acaatctctt cgattgtcag 3060  
ctccgacgcy tggctcgatg ttgacgttca agcgtgctc cctttcatgc tcattgcctt 3120  
agctgatccc tcagaaagaa tgcgctccgg agcaattgac gccttggcga acattg 3176

<210> 5005  
<211> 4948

<212> DNA  
 <213> Aspergillus nidulans  
 <400> 5005

```

agcttggatc cagtctgcgg ccgaagtaca ggattgatgc tgcccagctg tctcagagca 60
ggtagcaccc gcttagcagc tatcggagca acctcaatgg gaatgtactt ccagttagac 120
aggaggcggg actgcaactt tottgaatct gtaatcac acaagattag tcaatcattc 180
gattatagat gcgcgcgatg agttacgaac cggcaacgca aatgaactcc ttggcttgga 240
gagcaacaat tttttcctgg aaaagacaag caccaccgcc ctttataagg ttaagctcat 300
catccacctc gtctgcaccg tcgaacgcaa tatcaagcac tggtccttcg ggaatggcat 360
cgaaatccac tgctgtcagg cgggcgaga cgatcagctg cttggactgg aagcccgttg 420
gcacataaca cgtgccagag gtatcgattc ccagctcctt gatggcctca acaacataca 480
caatagtaga accactgcca ataccgacaa atttggcatc tttggggtag tggttttcga 540
cagcggcctt tccagcggcg cgtttagcct tctcgataag ctccggccatt gtggctttga 600
agcggacgga aatcgggggtt attcttgtac tagcacgagg actaagatag gacggaagag 660
aaagacagga gttggaccga agccggagac tgcgcacta ttaatatgct tgtggattct 720
gcgaacagtc cgggggagag gtgccgggtg ggggtaagaa ggtaccctc cgaagcgact 780
tttccatggc cactcaccag ctatcgaagg gcaatccggg gacaattctc accatgtggt 840
cgaaacacag atccaccgc gtataactct gactgcaaga tctgccctta tggcatagca 900
gccatccagt agtagcagtc gttacaatct cggcgttgac ctcgattcga ggccaaaaca 960
ttgatgggtg ggtgctttgc cgccatagat agcctttag ccttaggcca atatattgtg 1020
tgattacttc acgtgcattg acccgatca tcaatgatgc ttgtccgagg agagtgcatt 1080
tacgtctaca tgaccaagat cgctgctgat tttactgccc gtttctttca ttctgtctta 1140
cattacaccc tgggttgaaa tgacatcgga gtttccccac gccttaacag ggccctcgtc 1200
taaggagaga aaatacgatc gccagttgcg gctttgggct gccagcggac agcaagcttt 1260
agaggagtcg cgggtgctct tgggtcaattc ggacggaccg tggggcaaca gaagcacggg 1320
ggtgtccggc gtagtgggtg tcgaaacgct caagaatctt gtcctcccag gcgttgagg 1380
cttcacgatc gttgaccctg ctgtggtaac tgagccagac ctccgggtaa acttcttcct 1440
tgagaatgaa agcctgggca ggtcaagagc tgaagagacg tgtcgactac tgaaagagct 1500

```

gaatcctgat gtagaaggga gctttcgaac caaggtatat ctgccatgta gggacatgtc 1560  
 cgcaagccaa actcctcatg ctaaccggtt tactatcagc ctattgcgga gataactcaa 1620  
 gaagagcccg ggattctggc acaacataaa ctcattctaa tatctggccc tatagagcat 1680  
 tcatcactgc gggccctctg cgatgggtgcc aaaaagctag caatcccgtt cctctacacg 1740  
 cggctctgtg gattctactc cacgttctct ctccagcttc ctgctgtgtt tcctatagta 1800  
 gaaacgcatac cagaccgga gtcaaccag gaccttcgtc ttctcaatcc ctggccggaa 1860  
 ttgactgcgg ctgggtgctag taccaggaac ttggacagtt ttgatgatca tcaacatggc 1920  
 cacgttccat acgtattatt acttcttcat tatttgaaa aatggaagga aactcataac 1980  
 ggcagcgtac cctcaacta taaggagaag acggcattta gggacttcgt gcggctcttc 2040  
 gcaaggacaa ataattcaca agggggggaa gaaaattatg atgaagccgt tgcagctgtg 2100  
 ctaaaatcgc ttaaccatt cagtttgcg agttctacc gggagatttt tgagatggaa 2160  
 gaatgcagac aattaagcgc cgcttcggcc gatttctggg tcattgcatac agctgttcgc 2220  
 gaattctacg aaacacacca acttctccct cttcctgggt cacttctga catgaaagcc 2280  
 cagtcagccg actatgtctc attgcaaaat atctataaaa cgaaagcaag ggaagataac 2340  
 gcagaagtca cggatattat cagaaggtta gagtctcagt tgggccgagc cgccagagtt 2400  
 gatgataagg atatcgaaat attttgcaaa aacgcctccc acatccaggt gattcgtggg 2460  
 cgtgatattc cacaagtga tgggtggta gacacaaaa agcgtctacg actcgagctt 2520  
 aataacgacg aatctctaata tcccgtttac ctggcttttg aagtcttga tactgtcgta 2580  
 accgggattc aggagggaaa gtatcaccaa gacgcctgg acgatgatgg gatctggtct 2640  
 tccgaaattg gtgcattct cgctgttatt gcagcggagc ctgccgttga cgaggcccg 2700  
 aatcgtgtcc ttgacgcgc acaggagctg cggaggacaa aggggtggcg gctgcacaac 2760  
 atatcctccc ttactggcg tttagtggca caggaagctc tcaaggtgct cactaggcaa 2820  
 tatgtacctt tggataatac gtgcattctc gacggcgctc gcagcagcag cgccatgtac 2880  
 aagctgtgat gggtaatgct gggtaaaatt gccgggaaac gcagagacaa tactggctat 2940  
 agctagacag ctttacgata cgtgtctacg aaagaaaata taccacaatg acgaatatct 3000  
 ctaaatagaa tataatcgta gcatggcggg gtatacatcc ctttggtatt acagcggagg 3060  
 gttcgtgtct gcgctgcggc gacatcagta gttgcctctt tcgggctagt gcggagtcgg 3120

aagtaacgcc gtggtgtgga ggaatgaaca tcccagacaa ccccgactt caacttcttc 3180  
cagaatcgca acctctattg acgttcgata cgtcaagtat caacactcct tttcttcaga 3240  
ggcatatggt cttctgaata gtcatatatc atgcatactc gctgactgtg ctatcatcgc 3300  
gttccccggc atttcacccc ggccaacgcc atcaggcacc gtctgtcggc ttgccttggg 3360  
ttataaaaac gattagacat gtctctttct acaggtagcg gaataccttc gactgccatg 3420  
aatacttccg cacattcacc atctgtatcc tccgtgaatc tatcttcaac tgaaagtgat 3480  
tatgtcttgc gtcttttccg cggccttcga cgcgcggaat cgtatgcctt ttaccttgtc 3540  
cccagacgtc ttttgaggat aaccggatat cgtgaactgc aagcatatcg gtggaatata 3600  
ttcgggtgtg gacgggaaat gcatgcaata gcggcggcaa ccgaagctgc tggggaagct 3660  
gcgagagagg ctgcggtaga ggccgcagcc cagcctgata ctggcattca tttcacggat 3720  
cttttacaag gtgccataaa gttcagcggc tttttctcct atctcaccag tcgggtggtcg 3780  
ctcgcattgt tcacagtggg gaggattcct atgatttggg tgactcgggc agaggttcta 3840  
atttttgaaa ggcgctcgta ttgaacagga tcacgatata tgcttctaca aggagacatt 3900  
tacacttaga ctggatgaga cgactggctt tgccgatcat cctatttcta ctcttcgttt 3960  
ctcaaataca ctcccttctt cgggcaatta aatgccaaac gtcgcctgac taccgggaac 4020  
ttcggtatgg tacgcccggg aagagtctgc tcttggaaca tgctggacaa gggggattcc 4080  
tctattctct aagctctact ttgtcccat gggagactga ccagcattcg tgcaatgcct 4140  
tgggcatgaa ccgcgtgggt tctgacatac caaacggcac gtttagacta ttatggccag 4200  
tttttctcgc aatatgcttg agccatttcg tggaaactct atcaagctct ctacagggga 4260  
ggcctgttgt cgcgagggga ggaatgtcta tttttgagca ttcgctctct ttcgctgaag 4320  
ccgagtcgac catcagccaa tccttaggtt tagggccctt tagctcacct aaaccaagca 4380  
cgggcggaga cggcgggtgt gagagctcac gctcatcgct tcatatgctt acaaaatcgc 4440  
aaatactgga ccgaatgaat gtcactccag agttgctgct gattgctctg atctcttgtt 4500  
gtcattgcct gtctccaat gtgctcgatg ttcttggcaa gcaaagcaga taccgccttg 4560  
ttaacaccac tttctggggg ctgtgtttta tggcggcaat gacatggggc cttgttagtg 4620  
gatctcccc aaacagtgac gggttatcag tgagatttcc gaccgtttgc gttgtcggct 4680  
tcataccgca tctcatgatt ctgtgcggta tcatcgtgtg tgccgggatc tactcaatcg 4740

ctctcgtaat aactgctttc tctttgcctt ccgatacccc tcagcagttg actctccgac 4800  
aaagggtttca actggcgcat gaaaatatgc aagggtccaa tcagggttggc agtgtgcgac 4860  
tgaatcccca cgaggacttc tatagtgcac caccttagga tcggttaactc tgccttaacg 4920  
gcagagagcg aagctgtcgc ctttccag 4948

<210> 5006  
<211> 5691  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 5006

tacgcttgac ggtcagacct gaaacttttt aaacttttcc tttgttatct gcaaattgca 60  
taccctcttc ctttttattg tgacatatca taccttgggt gtaccaagtt gcatctatct 120  
gccatttgat tcttgacatc tagcattgca agcgcgagca tctcgagttc agattgcac 180  
taactgcctg aaatttattg ttattcattt gatcccttg gagtttctga agaccggtg 240  
gggtctggac aaatgacgag aacgtccaac tctgttctt ttcaaccttc cccctttccc 300  
cttgcathtt accatttctc gatacacgac atcatataaa gattttaatg tggtttcacc 360  
ttgtcacctc tgcattgtgt catctagcat gaacacagtc cttggttggg gaaaggatgt 420  
tccgtccaaa aaaagcatca aaaccaggat tctcacaaaa ctagcaaaaa aaaaatat 480  
ctgtcccggc ccgaggagat tgagcctgag ggcgatccat caaaagaggg ggatgagagg 540  
gctaactgtt gccaagagt ttctgcatac atacttacag agcgctagat agtacttagg 600  
gacgatttag tcatccatt gaaaaggcga attatctctt ttctattctt tttctgtcaa 660  
ataaaacttg gttgacagc ataacagctc cgtagagcat accatagaga ggtcagtcga 720  
cttccatgca cctcattttc cgctttcaat cggtaacctg actcgagatg gatatggggg 780  
acgttcggtg tgcatacctt acatctgcca actcagcgag tctcgtcagt gcgcaccgtg 840  
cagcagtagc tacttcgctt ttgcattcgc atactagaag atgtagacga agcaagttga 900  
ccgcgaaact ggaatgtcgg gaacaataat gtactgcata cctgacaaaag acaatcgggtg 960  
agagacgcag gttgcaggct tggacgaatg tcggagccac ggacggaagc ggagaatgtc 1020  
cggggtagcc ataactgcaa gtctgacaga agcgagtaa gcgttgactg gctcattggc 1080  
agggctcttg ctcaccgtct ttctggagcg gtagcgggac ttctactaag tgccatccc 1140

taatttatct attcatttga actaattatt tgggtcttgggt gaattggagt agtacaagga 1200  
 ttagttgccca gactgtagca gttgataata tagtatccat aatagctaac ccgaaagtat 1260  
 atctctaggc cggtggtaat ggtagtagta gtgttctgggt atagtacagt agtagccagt 1320  
 agtaggagta aacagagaca ttcgtggacg tgacgaaaac ctgatctgat ccctgatccc 1380  
 cagttcctaa tccttttgcg ttcgtgcgat gcagatcgat ggtctttacc cagctgatca 1440  
 attaaagga cgcaatttgg ggtctgaaag gtgacttgga aatagacggg cgtcgtgagg 1500  
 atgtcggcgt agtgcagaat ggactgatca cagatccagc cgcagcctag cgatgccgag 1560  
 gggcgtctta tctccttcca ggtgatcgag atcaggccag cgaatcaaga agcgacatga 1620  
 caagaaagag acgaaaacag ataaccaccc acgctatgcc gaacaagaag gggaaaaaaaa 1680  
 gcaaggtgaa gtttagtata caacaagggt ggggaagcga caggagaacg gaacctgggg 1740  
 tgacggactc ctgagagtct gaggtaacac gtgtgctctg acccttggcc ttgagagaag 1800  
 aaagggagac aaacataaaa tacaatgcaa tgcaatgcgc tgcagaccac aagaatgggc 1860  
 actttgcaac gagtaatgag ggtcatgaca atcactgtac aggggggaaat aatgcggtca 1920  
 gtcgaaccag agagcgagca ccagcgacaa aagcggtttag accgacgcta gtccacttcg 1980  
 ggcgctggac ccgtcgatct cgcctcactt ttgtatgaag ggaagccgac gaagctggaa 2040  
 ctagcacctg actctccaga ccgagcaggc cgtccgcaga gctgccagca gctaagcagg 2100  
 gagggcaaga gagttgagca actctctact tccatcgctg tctatcccag tcagacggcc 2160  
 gcgtctcatc atatgtctga ccgccgccgt tgtggacgat aacgggaagc tgtgtttttc 2220  
 gcggaccgga attggacctt atacagaagt cgttaatatt gttgagagtc aagcgtagta 2280  
 agcatagtaa gcatagtaag cgtagaatgc atacctcgtg aatcgtgtac gacgaccacc 2340  
 tggtcactgc tgggtggtgcc tttgctggac agggggtaat ttgagtcgtt gactttgatg 2400  
 ggcattttga tgtgcagagt gaaaatagag cagattgagt ggattgttct gaatgattga 2460  
 tgggtggagct ggagcttgaa gggagtatat atagttgttc tgccccagga tatataggtg 2520  
 acaggctcgtg gcgcagcaag gctcagttag gctcaacgga tggtagaagg cgagcagagg 2580  
 gtgaggggtgc gaggggtgaa taaagagtca ggctgacttg gaatcgatct ttgagatggg 2640  
 gattgatggg gaagtgaagg gaggaagcag aggaggactg aggatccttt tgtaccatat 2700  
 tccggacgca aggacgaagc tgttcaaaaag aggaatagaa gcagccagtc agtcaataaa 2760

cgaaattagc agcacagctc ctccgtacag gccagctcca gataccgatac eggctggctg 2820  
 gatgacccca gacggagtct tactgctctg catcagtga tcataaacac tcaatactac 2880  
 tgctgctcgc cagaaagaga caagtgtccg tctacgtcgg tcggagtgtc atatcattcc 2940  
 attccagggg tggctcgagct gtcgtggatg ttcaggagcc ttccttatec tccaaggcga 3000  
 ggccggcaaac cggatcatgc cttgggtggg ctggaatctg atctggataa cgagatcgcc 3060  
 tttgttgaga ctcacgaccc cctgtcagtc ggtctgctgg gcttaaactg tcttgccaca 3120  
 gtggcaatga caagacgagg ctgggtctgg ttcacttact cttcctctct tcccatctga 3180  
 tttgtctact tggtttctgc tttgtctttg tccagccagt ataataacga gcgacgagta 3240  
 cagtctggac tcctatcgta tctaagcct tgatacaca tatcttgctt ttggttggac 3300  
 aacactttgt aatttattct gcattttaca ataaatacaa cgtgtcactt gaccatcatc 3360  
 taattataga ccattcccaa acaagcatag tgaatggccc ctgatgacat aaccgcact 3420  
 aaccacattc ggtgatccgt caacaagcca gttcactcca ctccactccg ctccataccg 3480  
 catggataac tcggcttccc agctgccatc ctgtgtgggt ccatcacgtt ggccaccagg 3540  
 ttggctggaa tgtccagcct agatgtcggg aaaatcaggc tggcaaaagc aacgccctcg 3600  
 cctcgttctt gctctgtgat acgggaaatc tcggaggtac atctcgggtc tgctctcgct 3660  
 ctctctcgct cgcgctcgtg ccagtttaag ctagccgtct actgaatgag atccttaggc 3720  
 agccgccttg ccttgccctg gactagctcc atagtatgca agcagtatgc ttgctgacgt 3780  
 tgactctttg gtccccagtc ccagccctg gggaaaatgt acggacggac tgtggaggac 3840  
 tccgtgcatg aagctttctg ctgccggcct atcactataa ggaatgggta ggagctgcgt 3900  
 ctggacctgg aataagctgg aataaggcat ggatgaacgg tgtccatctc tgtacgccga 3960  
 ctctgtacag aggatactct gctcaggaac tattatttac cgttccactc tgtactattg 4020  
 cctcttgcg ttcacaatgt agatctatac ctcggtgtgt aggcaacgga gtgctgtgct 4080  
 acgcatctct gtcttccgtt aatcaccacc gagttcaacc accccttaga gtgatttggg 4140  
 tgatcgccca cttacaatgg ggatctggag catgatggta ctcatgctat cttcctcacc 4200  
 gctccggatc cccaaggccc caatgcacag actcttcag cgtggagttc tccgtagtct 4260  
 agtccttca tagtccatac tttgtacata cgtggatggg cgggtatgca ggtagccgg 4320  
 tgacaatcat tgattctaga tcgtgggatc cacacttgag tgaattgtca aggggttctt 4380

tcttgttttg tttcaggcac gctcgttcca ggctactttc tataattcga gtccggctga 4440  
ggaccgagaa ctggcctgac aaagagagcg gtgactgagg cgctgagctg agtaaggcag 4500  
tgatcaagca agcacatgaa ctactagagc tttctagata cgtgtaggga gtgaaccagc 4560  
tgatcatcat tggactcgta atattgagtt gtctgcttac atacctaccg aagtggatatg 4620  
gcgcatacta cagagtaaaa ccatcactac tagcagccgc ggcatTTTct gccttcta 4680  
tcgcactgcy tcatactgtg tacaaccgtg atcacagccg agaagagaca agtacgtagt 4740  
aacaagggca ctgctgcctg accgccatgc ccagctacga atacccaagc aaccggcggc 4800  
gccttccctc cccaagtca gtcgtagcta cttgttcacc ctcttcatcc gctcttcca 4860  
tccgttcata ctgcgtcgga tccccagcgt ccgtctcgcc ggccctcctg actgagactg 4920  
taccatcgac attgtcgtag tgtggaacgt ggccgctggt cgcatacccc cagctccagt 4980  
tccgacggtc accatacctg gccgtgagcc tgcacagcct tgagcttcgc tcgccgcaga 5040  
gtccttgctc cctccgtttg tgtcgatgac cgtgtgcacc tgactcttga gcgaatttgc 5100  
cttgtccgtc ggccctgagg atgcagccaa ccatgtgtag cggtttgggt cagaagtTtc 5160  
gagagctggg cgaggtgggc ggaaatgttg agttgggtgt cgatgaccga tatactgcgt 5220  
tgggatggcg ttggattgtc ggggggtgcaa gggcttacca gggtgatcca gggcgcccga 5280  
gctattcggt agaagctgga cgagccccct ctgctgtgtt gactgggctg aggactggcc 5340  
aaagaaggac gcaatacttt tctgaagggc ggacggacga ttgaatgcaa ccacaggctt 5400  
cgatttggcc ccgcgttctt cttgtaagga ctgctcctgt ttttggattg tcgtcgttat 5460  
atactcacgg gctgtcgaga acccggacat ggtagtaggt accatcaagc tcgagccgtt 5520  
cattctatTT gtcgaagaca tgctcgcat ggatgtggtt gtcgagtatt gctccctctc 5580  
gtatcggcgc cgtttactgc ttggttcgtc atcggtcgcc cgaaaaccgt cccatcgaat 5640  
aatcatgcct ggtgactctc gtcgctctc agtccattgt gtaatagcag a 5691

<210> 5007  
<211> 5848  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 5007

agtcctggagt tctgtatTTc gtcgcttatt ctgcgaacgg tttggcgttc tgggaaggca 60

gcagacaggt tgcccgacac gtgaacggcg agcctggcgg tgttactgtc ggcgctacgt 120  
tcacgggtcat cttcattcta gttgaaggtc agtaactcta tttgtccgtt tttcgagcca 180  
gtactaacag ctacagcgac cctgcttctg agtcaagtcg caccattcct tcacctgttc 240  
actgcaggag ttgcctcgta cgagaaattg catgcagaca tcaatcgcca gccgctgatt 300  
gatggaacta ctccctcagg aagccgcctc acccaggctg gtgggttcga gctaaacgaa 360  
gtctcattta gctatccctc acggcctgag gtcaccgtcc tcgacaagggt ttccctcagc 420  
atacctccca acaaacatac tgcaattgta ggcctttcgg gaagtggaaa gtcgacaatc 480  
gccggcctgg ttacaaggct gtatgatecc acggaagggc aaatcttggt cgatggccat 540  
gatcttcgcy acgtcaatac tcgtgacttg agaagttttg tcagtttggt gcagcaagag 600  
ccgaaccttt tggaccgttc catcctggag aacatcgac atggtttggt caattcgagc 660  
aatcccagcc atacgcctct gagagcagcc cttctcagct ccgacattgc ggacatcgct 720  
agcgaagtta gggagggaaa agatttaatg gaagcggctg agaaaagggg cccagagttc 780  
gttgagattg ccaaactggg ccagaaagcc gcgcagctcg cggatgcaga agctttcatt 840  
cttgcaactgc aacatggata tggcacactt gttggatcca gtgggaggtt gatcagtggg 900  
ggtcagaaac aacgaatctc ccttgcgaga gcccttgta aggatccagc cgtacttatt 960  
ctggacgaag caacggcctc tctggattcg cgaagtgaac aacgtattca aagggctatt 1020  
tctaacatag ctagcggagc aaccatgatt actattgtc atcgtctatc cacaattacc 1080  
aatgcggata atatcgctgt tatgcacaag ggccatatcg tggaacaggg gaaccatgca 1140  
acattgatgg caaaagatgg ggcttatgct gatctagtca aactgcaaac gctatccact 1200  
actgacaaga atgaatctac aaccagtgtt gatactatca gcaaaaactga tcagatctcg 1260  
tcggacggcg acctcgagtc gagcagctct actgacggtc ccagatttat cgaggatgag 1320  
aagaagcctg aaacaactga aactccggtt accgactcaa cagaagagcc tgaagaacct 1380  
gatacgcaa acaaactcct atgggctctc gttaagggtt atgcgccgac tctgaggccg 1440  
catttgcttt ttctcctcct tgcgctgctg ggctccagta ttgttggcgg tgcattttct 1500  
ggatgaagccg tgatttttgg aaatactgtt ggaagtttga atccatgcaa cagtgcggat 1560  
tacatccgat ccaagggaaa ctttttcgga ctcatgttct tcgtgttggc gatcatcgag 1620  
ttctttgcga ccgttggttag ttggaccgga tttggtgtgt tgtcggagaa agtagtctac 1680

actgtccgag ttctagcctt ccggtcactg atggagcagg atctccagtg gcaccaatcg 1740  
 aaaggtcgct caccaccctt gctcctctca tacatcacca gagatggcaa cgctttggct 1800  
 ggactaagcg gctctgtcgt cggcacactg ttttcaatta ctgttaatct catcgcagcg 1860  
 attatcttga cgcacatcat tgcattggagg attgctctgg ttgacctcgc tctagttcca 1920  
 ctgctgcttg gtgcgggtct tatggaactc catatactcg ggaagttcga ggagcgtcac 1980  
 gagaacgctt ataccaagtc ggtcgacatt ggtgttgaag ccatcacctc catcaaaaacg 2040  
 attgcatctc tttcccttga agatgagaca ctgaagacct accaacggtc cctgaagggt 2100  
 cctcgtaagg aaacgcttac agttactcta caggcaagct tttggcaggc gatgacctac 2160  
 ttctgggta acctcgtgaa tgcgttagcc tactgggtggg gttccaaaca aatcttggcg 2220  
 ggcaattata ccagactca gttcttaatt gtggtgtttt ccctgcttgt tagtgctttg 2280  
 ctttggagtc aaatgtttgc tcttgcgcca gagctttcgg cagcacgagc tgcaatggcc 2340  
 aggttactgg gtcttattga gataggggtca gataagatgc aaggacacgt accccctcgc 2400  
 tcccttacgg catcgtcttc aggggaggaa gaggcagctg tcgaaactaa gcaacatgca 2460  
 tcagacagca aagcctccag cgtccagctt cgcgacgttc actttgcgta ccagccccga 2520  
 ccagacatta aggttatgaa cgggttgact attgacatca agcccggaaa gttcgccgcc 2580  
 ctgctcggtc ccagtgggtc aggaagtcc acaatcattt cactagttga acgcctttac 2640  
 acgccgcaat ctggctcgat cctcgtcgac ggcgtggaca ttaccaagca tcgggatgtc 2700  
 ggcttccgag actcaatcgc tctggtgccc caggaaagcg tcctcttcga agggaccatc 2760  
 aaattcaaca ttagcctcgg cgccaaacca ggccacgagg tttcgcaggg ggacattgaa 2820  
 aaagcttgca aactagcaaa catccacgat accattgccg cccttcccga cggctacgac 2880  
 accctctcgc gtcccaacgg gagccagttt tccggaggcc agaaacagcg cctctctatc 2940  
 gccagagctc ttgttcggaa accgaagctg cttatccttg acgagtcaac tagcgtcttt 3000  
 gacgcggagt ctgagaaact gctgcaggat gggctcgaaa aggctgctaa gggaatcaca 3060  
 gtcattgcca ttgcgcatcg tttgcataca atcaagaagg cggatgtcat ctttttgatt 3120  
 gagggaggtc ggtgtgttga acatggcaca catgaggagt tactggccag gtcagagagc 3180  
 tacagggcta atgttatgca ccagactgtg gctacatgat atttttcagc aaaaaagat 3240  
 cttatagagt atatagcata gatttaattg tcattagcgt ttgactgact cttgccctcc 3300

actttccaat ctaagtcact ggggtaccaga ctatgcctac ccacttaagg acgaactgag 3360  
 ctcgtaccca cgaaggccct catttacgta cctgctgcaa ctaagcaaaa gaagggcaag 3420  
 tgcgtggcg tttccttcga tacagtgett cgcttgctag gagacttaca tactttgctc 3480  
 tatatacaac acttctcata ctcaacagaa ctgccc aaat cgaaaacaac ataagcatct 3540  
 cgagactgat caaaagaaaa agcaagatca atcaaccatc cagtcta atg agcccgtcag 3600  
 gctcagcaac caattcctcc accacaccga ccaactcagc taacgtgctc tcgacaaaact 3660  
 ccctatctga ttcacgtccc acgattccaa aatgcaactt ctgacccctt acgagcgaaa 3720  
 caaccttgac cggatcagga gagtcacat gcggattcac aatgtcgact tcacattcac 3780  
 agccagcaaa cggcatagtg tcgaagtcct catggtcttg gtgatgaact agagagtcaa 3840  
 agaacaatcc tccagtggat gacgacaacc aggatgtaca gtgctctgca atgcgacgga 3900  
 atccccaaaa gtcgtacgcg gccgattccg cactctggga ttgaatgaag tggcacagag 3960  
 aggttggcgt ccatgactcg cgagcaccga agggaacacg aataggcgtg aactggtacg 4020  
 ttggccccac tatctcctct gggttgtcca agagaatgtt ctcagcgtcg aggattcggc 4080  
 cggaggttat gccgccgaag gttacgtcct tttgctta at agtcggggag agaaggacgg 4140  
 cccaagctgc tgtgaggaga gttgctgttg tgtatccaag agattcgaac ggctgtgctg 4200  
 tgggtgttgc tgggctggag aggaagatac ctttttcggc tttgtcagtt gatttgcct 4260  
 gaagaacgga gagtgtggaa tcttgagta ggtttcgcca gtaggcaatt gccttcgatt 4320  
 cggcggactt gttaccata atctgggaaa cataggaagg gaagggtcg attgtagata 4380  
 gggaaattgg gcgcccagag taaagggtt cgaggtcgcg gagaagacgc gggagggaaa 4440  
 caccgtcgta ttgggcatgg gagaggcgga ggaccagggc gtgagacca gcggcgctt 4500  
 ggatgtggaa aaagctgagg aagggggcgc ccaaattaag aggtgtctca atgtcagctg 4560  
 cgagaggtt tgtgatgtat cgtttgagat cttcttttc tgtttgatgc ctggtgatag 4620  
 gcgcttcgag ggtttgcagg ataacctgga ggaaagagga ctcttggtcg atgaaaatgg 4680  
 tgcgtaagat atcgtgagtt ctgaccaagt cattgcaagc gcggagcaat ctctcactat 4740  
 ctattccgct gtcaaagatg agcatggtat actgtattga agtcgcgggt gcgtcgactg 4800  
 ttcctttgat atcgagagcc tgcaatctg tgacggggca aatatcctga atagcccaag 4860  
 tcggatctaa cattttcgga cgaacattcc cagacaagaa gcgctccagg tcttggtatg 4920

caggcagagt cgagaaaggc atgtatgtct gcgcttgcac cttcttcgac tttggccctt 4980  
 ggcccacctt caaccgctta gcagcatcgc caaggcgcat atgctggaaa acgtccgcga 5040  
 ctgttaaagt atgtccctgt tcacgaaggc ttgaaacaag cttcattgcc agaacggagt 5100  
 cacctcctag gcggaagaag ttatcatcaa tgtcgatgcg ctgcacctcg attttcaaaa 5160  
 tggcggacca cgcagcccggt agaatacttt cgttagctgt taggtcgggtt ttctgggtga 5220  
 gattcttcca ggcggactca aagcctacac ggagctggga aattatttgg cggggaatgg 5280  
 ctgaagagag ctcggtgagg aggccgtggt cgatctggcc tgtctttgta cttgtgggga 5340  
 tcttgtaaat aacaacgtag gttgacggga ccatgtatgc gggcaaattg tcgcggatga 5400  
 atttgtcgag cttctttaaa gctaaggcta ggttgacgga gatggcggca ctaatgaccg 5460  
 gcgaattctg cgaggtagac gcactggggg ttatgacatg ctgctttgaa aggagggtga 5520  
 cgctggcttc ctcggaaggc tgctctacaa gaacaacaag ctcagggttc tcagatggtg 5580  
 cctgggatac ggcagcagcg gcgagaatcg tcggcgggag atgtttcttg agatgggcct 5640  
 caagatccgc gatatcaact gcgtgtccct gaaccctac aacattctct ttccgaccaa 5700  
 caaagatcag actgccatcc tctcttaatt gcaccatgtc gcctgtcgac tgcactcttc 5760  
 ccgtgcggcc aggataagta gagcttcag ataccaacca ggcaggggat tcaacagtct 5820  
 cggtgcgag cacagcacct tctatcca 5848

<210> 5008  
 <211> 4973  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5008

ccccgaccca tctcgttcta ggtccatata gccaatctc caccccaagc gtcagggtcc 60  
 caccacgect cctccccctg caactctctc acgtgggca tatttaaacc gcgtcgaggc 120  
 tgaagcaaaa gaacggggcg ggacaggcgc gaagttgaat tttgaggagt tttcgaggcg 180  
 tatggcggct gatcgaggac gaagattggc gtttgtggcg agttggattg agatggcgag 240  
 tttctaatag agtttacttc acttgatga taaatatgta tgtacttggt gaccttgagt 300  
 caggaatcat ggtgcatcgg caaaattcat gaagtaatat gagcataatt gattatcaag 360  
 ctgtgccgtc cgcgatgatc cattagagta taatgaacat gcctaataa aataccagct 420

gaacaacctg gttgacaaaa cccagtagaa accactatct aatcccaaaa ccgaattacc 480  
 ccgtctaacc cgctgtgac aactttactc gtctcctgcg gatgccaatc caaacaagtc 540  
 gtggccccgc cctccttccc ccctgccatg atcttatgat acatcttgcc cgttttccaa 600  
 tcccaaaaagc acacgtaccc ggcaactatca ccggacgcga taaactggcc gtcaggagag 660  
 atcgtcagat caatagcata acccgcattha ttgtggccgc ggaaactctt cttgcgattc 720  
 tgtcggaact tgtcgggtcg cgccgtaaag gacaatctgg ttatcgcccg attgaaaagc 780  
 gacgtatctg ccgttgggat gggccgctgc gcgcgtgaga gcgaacatgt acggctctgc 840  
 aatgaacttg attggcacgg ggataccgta ttcccaggcg cgaagggaact tategtcgga 900  
 tgtggagatg aagcggcggt tttggctgac gaaggtagt gtgttgatgg ccgcaagggtg 960  
 gtggcatat tcttggaact gctcgccggt gcgggtatcg aactggacga tcttcttgtc 1020  
 agacatacca gcgaggaact cgtgggagtt ttccggattg ggggtgaatc ggatgacatg 1080  
 aggggttttg ccggttgaaa agcgcgagat gcaactggct gtttcggtat cccagagttt 1140  
 catttgccgg tcgtaggagg ctgttaggaa ggttttgccc gtgatatgga aatcgggtgc 1200  
 agtgatggcc tttgagtggc cggagaaaagt gcggagcagt tcacgcgagt gatacacatc 1260  
 ccagatcttg gccttgccgt cagcagcaga ggagaggagg aggtggcccg cttgagggaa 1320  
 gaagcggagc gaggtgatgg ccttgggtgtg cgacttccat gtgtggacga gtttcttggg 1380  
 gacgtagtgc ttgatgctgc ctacgggttt cttaagatcg atatccagat cctgagggac 1440  
 gtgcatgtac gttcggccca ggtagtcgta ttgctctgag ccgtggaatt cggtcgtttc 1500  
 gacctttgat gtgtcgtctt ggtaactctg tgcttcttg ctcatggccg gcatgggcgc 1560  
 cgatccaact tgctcctggt cttcttcgtc ttcttcacc tccacgagtt cctcgtcgtc 1620  
 accgagttct tcgtcataaa cctgatcgtc atcttggtag ttccgccaag ggccgagata 1680  
 tgcgcccga cctcgcacaa tgctcgaatc gcccttttgc tgctcgttgg ctcgtaacgc 1740  
 cgctgatgct tcttcgaag gcttcatctg cagcagatca cgaccgcca actgagcagc 1800  
 atgatcaaga ttaccaacaa actgctctgg ggctgtagga ttacgcgtat aaccaagct 1860  
 ttgatacgtg cgatgctgcg cagtgaatgt ggactcgtg atggcggcgg cctcagcgta 1920  
 gcctgtgggg acatttttgc gcttgaggcc gtttctgca cctgcggatt tgaaggggtt 1980  
 ggagggccct tgggaggggc gcgagaggtc atcgtatgct gcgttgtaag tcaacgcttt 2040

cgaggaagta ttagcgagca tcattcgcat gtgcgattga tcctgtaggt ctgttaggct 2100  
 gagtgtactc ttgtgctggc aggattgtag ggaccaaacc tctgtgttca cctcaggggc 2160  
 ggcgacgact tttggggcgg acgccgctgg aacagacgga gtatcgtcac cgctagaatc 2220  
 gtaagcggct ccaagtaatg cagccatttc gtgcaaattg atgtgagcgg acgaagggtg 2280  
 tgaggaacgg ctggaccttg acgtttgacg ttttacgggt gccggtagcg ccaagaacgc 2340  
 aaacccgcc aacagcactc ggcccttttt aaggttgaat gttcacagct gattggagac 2400  
 atactgccat acaagagttt ataatgaga ttcagaactt tagagtgttg ttattcctat 2460  
 agagtattgg acgctatcat cgcaacaccg ctcgaggtat atacagtcac tatttgaaga 2520  
 catcaaaaaga aaagcaacat caggttcaac agaggctgaa gggtcatgac aagtacaaaa 2580  
 cacagttcca aggaataaac aaaacagtaa taatatgaca cgtctcagcc tctagtaaca 2640  
 taagccacca tgaccgaagc cgcttcaaag ctcgctttca ccaaaacca ccgataaatc 2700  
 atagtcatgt catacatagt gttgctccct gctctccggc cgtaagtctg ggctgcccc 2760  
 agggcaactc cgacgtcctg tcgtaccggg agaggggaag cagaaacctt ctatccgaca 2820  
 gttgctaagg cgtgcaagag cagcctagta cagctccgaa taattcttcg cctccaccct 2880  
 ccgatgagac cgggtatcgc gacgttattg gggccggcca tagcgcgttg catcctgggt 2940  
 ctcgtcgtat aattagtgag actcgtcgcg gatgagggcc acaatcatgc ttagagagga 3000  
 gaagaagaac atcaagaggt ggaaaccaag cttgataaag gattcctaga gctcggaggt 3060  
 cagtgtccgt gattccccgc cttatgacgt aaatggtaag tctaaccctc ttgtgtacgt 3120  
 tgagcttgcg gaagatctcg gtcgcatcaa ggaggtgctg gttgtcgtag atcctgcaaa 3180  
 gtaagggagt cagaacccaa ctctaattcg cgcagactcg tcgtcagact cgggctggaa 3240  
 ggaacgcact tcttggcatt aaatgccaac agcggcagat ttagggcaat ggcgagccag 3300  
 tagccgttta tcacgaagag gaaggtgaag aaagcgtgga caccagcttc ggggatgatg 3360  
 tacgcgttga gacggttgca gaggtcgata gggttgatgt agtcactgca gcaccagatt 3420  
 agcggaaacc atgaagaact tcctccagcg cccggttgcg ctttgattgc ttagaagagc 3480  
 agctggatth gaggtgtaaa taaatgctta ccattcaaga tcactgtaca tgatagtga 3540  
 gaagacctgc aagaacaggt tgacggcgtt aatcaacacc gccagaaggt agagccatgc 3600  
 ttcaccggac atcttgtgta gagcgagaaa gaaagagtag aataagggga aaagacacag 3660

tcaatacaga gcacaagcac cgagcggaga ggtccgtagg atgaggggtg gagtgggtaa 3720  
gggagcaggt gggagacgag caggagggat ttgggctgga gactttggtg cggacttttg 3780  
ggaaaaatag gcgtgggcgg gcggtgagcg gcgacctagc tcaacactcg aattttcaag 3840  
aggaatatga acagggataa gcagtatccc cttatattta ggtattattg attggaaaat 3900  
gataatcaaa agtctagact agaaaccgtg agatgagaag ttgttgacgt tgcgtcaact 3960  
gtcgagagct catgatgcgg ggaacacgtg cttccatgcg agtctggcgt cttccacttt 4020  
ctacaccgga aatgaggtac tactagttaa gtatgctgaa ttctggtaca aattgcaaag 4080  
tatgtacagc tccaacctat acttgtacca ttagatacga gaaaacatca tcacgttgct 4140  
tgtgggttca aacaagcttc acccacgggg cggaattatg ccgcacgcca ttatcgccgc 4200  
tcgacaagca ggaaatgcat cgctatgtac gcaatcacia ggaatgctcc ggaaaagaca 4260  
gctagtccga tgacatcctt ccagtaggcc agagtgtcga atccgaatgc actaaggatt 4320  
gaagcccccg gaacctcaat atcaagtcgg tacttgtgat cgatcaatgt caggaatgtt 4380  
acttcgttaa cgatcaatgc ttcaaaccgg taatggaaga tggatagcta attgaaacag 4440  
tcagtcacaa tatctggaaa tggggaagga gggaggctta ccgattgcaa ccagagcgcc 4500  
gatggcggga tcgcatcatg gttgagcaac agcccagcaa ataggagact gaaaagcatg 4560  
accaagcttc caatcaagtt ggccacaccg ccacgcgga agacaatgcc aatgaacaag 4620  
cagatggtag cagcggctag gttgaagaga accaatacca ggatgaactt gaaaaactcg 4680  
ggccaggccg ggattagccc cgtcattgga taaactatca caccataat gatcggcgga 4740  
atgagcctga ggggtacaat gtcgaacacc accttcgcgg cgtagtaggt cacaggatga 4800  
taataccggt tagcacgctc ccggacgaac agaaggcgtt ctgttgagaa cacagttaga 4860  
ctggtcaatg tgctgaaccc aaacaaagcc agtacgaaga agaaaagacc aagtctgttc 4920  
tggaaccct tgatgtcgtc tgtagggccg tagaatagaa agccgcacag aac 4973

<210> 5009  
<211> 2279  
<212> DNA  
<213> Aspergillus nidulans  
<400> 5009

agatcttttt ttttgcttcg gctgctttgg cgataagagt ttgcacgggt tgcacccgcc 60

catctgtata tcacgtgatt gttacgcttt gaggcaacat ctgggcaatt gagtttatga 120  
cctcaacttc tctcgttcaa tatcaaccct ggagaagggga aagccctaga ctctgaact 180  
cctttgcctg ggagtcgtcc tgttttggtc agctactagt cggaacattg ttcacctgct 240  
ggacatcagc actattacca gaaatggata aactcatcac gaactcaact tgaatcgagc 300  
aattaggtgc ctcttggaag aattcaagcc ccaatatctg cagcggccaa tttgctgccg 360  
ttgaatgttt ggaatctgcg cagtgtgcac atgctgaaga gatcaatcg cctctcgagg 420  
catgggcact atgcaactgc actcgcagca accgaagcaa ggggctctcc ccaggggctg 480  
caccttttga ttgcccggcg caaccgcttt attgaatcga agcatcgtga cgctatccca 540  
gtgtttcctc taggggtctc cctcttgatt cgcgctcttt ctgcatgtct cattgcttct 600  
gtgatgacga tatgcagaga cctgagatg cacatcgccc acgtttctat gcagctcttt 660  
gccaatggg ctgagatcat ctgccaatta ctcaatccca cctttctctg gaatgcaagg 720  
acagtggaga gttgcccttc acggttcaact catgttccaa aattcctttg gaagggggcg 780  
ttgagcatgc ctgatgtttg gcgttctgtc agcacaaggc cgtcagggac tcaagggatt 840  
tttgctaata tcgaccgttt cgtagtataa ggtctcttcg gtcgcatcta cgttcgttga 900  
cccgaattt ctctacttcg ggtttcgtct ctatcttacg cacttactgt tcgagcattt 960  
aactgacctt atatacttaa tatlattgac ttgcgttgaa ttcgccatgt cctcaatgga 1020  
ctacgaaata gccaaaccac ataccaggcc ttattatggc catcagcgtc atcatactgt 1080  
gaatgctagc ccagtcccgg catatgtaaa cagaagtgtt ccaacctata gtctcatgaa 1140  
ccaggagcag atgcctcagc ctaatagcct agcttctcca cgacactcac ccaatattca 1200  
gccttggaag cggcagcagc cacaagctc tctttcatte atcccttcga catctccgcg 1260  
ctttgaacaa tccgaatata caatgtcaca gtccagacgc ccattggacc gcggcaccgc 1320  
ttgtatctcg cccttcggtt ccgtgcgcaa aatgaaagag cctttccaac ttcgtctgcc 1380  
agcatcacca tctgttgata acagttcaact cgctcctggc gagtctcgag tgacttctcg 1440  
ccctactgaa acccggacgt tgcgaccatg gcggtcagag cagaatctcg ttgcgtctgg 1500  
cctagacaca ttccgggttc tccaagccc gccgctatct gactcgcaac cgtctcaagc 1560  
atcacctgca tcgacctact tctcttccaa atcggcatct gaaaccgagg ccgaccgaga 1620  
aacggactgc agctgccttc cacaagcagt atcatgcaac cactgcaccc ctcaaactcc 1680

cgcgaccgaa gtatccgttc agagccgcaa gtttgaagcg actaatgtac acatggcgca 1740  
 ctcaacattt gtcaggcaat gtgagttagt gaacgggcaa atcactgctt cagcgatggc 1800  
 ttccggatgc atgtcaccac ctacgacctg ctcagatgta gactcgctag ggaagaggaa 1860  
 cttctccggt tcatctgcag caacgcaaag gagtagatct ggcacagtat ccagtgaggg 1920  
 cagttgggtt ccaagcagcc ttcatattg tgaacatgg cttcaaggcg cgcctatgga 1980  
 ttctgcagaa gatgaagccg gcaaacttac aatctcgaat cggagaaagt ttcaaattgt 2040  
 ccagaaaagc ccgctgggtc cagattggaa gcgtgcacat aatgacgcgg tatgtctatt 2100  
 tgccgttcgt taacatcatg ctgtattaac cctctataag gtccttgccg tgaaaagtaa 2160  
 gatgaagccg aagctgggtg atatatctcg acaatcctca cagcaatgag ctactcgctc 2220  
 cctactccaa cgcaccccat acctgccact ccagatcata gcctgccaga ggtgtctgc 2279

<210> 5010  
 <211> 7919  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5010

aggatgtcct ttgcttcaat catataggca tccataagta tagaatcgcg ccatgccgta 60  
 tagttagatc gaccattaag cagtattgat gcttgggtac caaattttga tttggccaat 120  
 ttccgaatgt cttgtttttc gcgatataata aggtctcggt gttgaatgtc tgtatttcga 180  
 ccatagggag cattctgatt gatttcctgg tgtagttgct gcgtagggga ttgatattgt 240  
 tgctctgcgc gtatctcacg cctgatcttg ctgcgcaatt gctgagccat ctctcacat 300  
 agttcttctc atagttcatc ccgtagttgg cggagtaatc ctgctcgcat gtcttcatt 360  
 gtggttggtt cattaggttg gtcttcgtcc gtcgaatcgt tcgatatctg gttgtcagca 420  
 gatactgggtg tttccggctc gtatgtacga tgccttggtg tcatttgaaa cagtacgtcg 480  
 tttgacttgg tgctctgtga ggcttttggc ggcacccatg cgaaagggtc cttatgatcc 540  
 tgattcaggg gtaatcccca aaactgttgc tccccccct cgtacaggtc cgggggtgcct 600  
 aaaattttgt atagcaagtt gctcagagca tcaagaatcg attctgcgta tctatatcta 660  
 gcaaacaaat cgtattcctt cagcgtaaag ggctcatgac ctatgggaag tgatggatgg 720  
 ttgtcctttt ggggtggccgg aaaggccagc ctatctaaat aactagctta ctaaagatg 780

actaatcgag gtcgaaccct aggggcaggc ggtaccggag ggcagtatgc cccgacagag 840  
 tgatcaggtc acgtgctcgc atactgccag ctaggacccc cccgacatta tttgttaatg 900  
 tagtgaaatc cacagttagt cagaggaagt tggcatagaa tagagagaac taagtgatca 960  
 ttgtctgagg gagcaagctc atggacttag ttacagaaca aaaagatggg agatacacgt 1020  
 gtcattcttat atagccccctt aatattggag tatcaactac tccaactcca agcaattact 1080  
 ccaactccaa gcgctaagcc atattcataa cagctttaaa tagggcggct gtgcctgaag 1140  
 gccacatct aacctacata tccccctctt tccccacctc tttgaccagg tcgatatcac 1200  
 cttattattt ctcatagttt cgccataact caaacccata tactacaact ccagagctag 1260  
 cttacgaaga gttggctcga tatggctgat ccactatcaa ttgcgtctgg agttgccggc 1320  
 ttgctgtctc ttggtatcca ggtcacccaa tctctggta acttctactc agcgtataag 1380  
 gatcaggaat ccgatttgat tcagatcacg caaaatcttg gaaatctttt gggtatattt 1440  
 acggcccttg atgaagcatt gctaaggcgc cggccgcgga ttgatgatca agagctgggt 1500  
 ggcagtattg acagatcaat atgggggtgc aaagagatta tcaaagagtt agaagccgag 1560  
 tgtcataaat tacaagagac atcaacagcc ggatttaagg gtcaaataca gtctgccggg 1620  
 cgtcgggtcg cgtatccctt tcgaaaaagt actctccaaa agcttgaaga ggacatcagt 1680  
 gagatacggg agaacctgtc cctagcactt gacgtgctcc agtcaaaaag caacaatacg 1740  
 ctccaggagg acttgtaaaa gctcaggta cttcttgaac acataaatgc gactcatatc 1800  
 tcgtctgaaa tacgtagctg gcttatggct ccagatgcga ccagtgatca taatgctgcc 1860  
 tgtgagaaac accactcagg caccgggact tggttcattg aaggccatca ttataaaaaat 1920  
 tggctgatgg agcgcaactc tctcatctgg ataaatgggt ttgctggatg cggcaagtgc 1980  
 gtcattgtgt caacagccat tcaatctacc ttccttgaga gtcaatatcg acacaatgtg 2040  
 ggcacggat tcttctactt ttcttttctg gataagtcaa agatcacagc ttccggcatg 2100  
 cttcgagcgc tattattaca gctatcagcg cagcttaatg atggagagaa agacttgtag 2160  
 caactgcatg caacatacag gctaggaact ccaccagtgg aagcgcttct caactccctt 2220  
 cagaatactt tcagcaaatt ccaggacacc tacattctgc ttgatgcact ggacgagagc 2280  
 ccccgagaga gtgaaagaga ggggggtgta aaagcaatag agataatgcg gcagtggcgc 2340  
 ttgccgggct ttcattcttt agttactagc cgtgacgagc tcgatatccg ccagtcaacta 2400

aagcccgctc atcatcaaga tctcatgatg aggaatagtg aggccgagaa ggatatagca 2460  
aactttgttt cttaccagct cagccatgac cccaaatttc aaagatggaa atcacgtcat 2520  
agagagattg aggacaattt ggccaaaaag tcacagggag tgtaggtacc gtagaatatc 2580  
aaagatttaa gtattttgac tgatttattt acagatttcg atatgttgag tgtcaattaa 2640  
ttgctcttaa acgtgctcgg aatcagaatc ggcttgatga atgtctacgt tcgttgccac 2700  
gcgacctgga tgagacatat gagcggattt tgtgcagcat cgacaaggac gatgctgggg 2760  
atgtccaacg aatattgaca gtgctctgcg tgtctaaacg gccgctatca gtgcacgaat 2820  
tgattgatgc tcacgcaatt gaccttgacg agccgccgca ccttgatcgt gacggtcgat 2880  
catatgatcc agacgatctc attgacatct gtcgtggtct gatagaattt tcggtgatcg 2940  
aacaagacaa tgaaaagaag acaactgttg cccgcatagc acacttctcc gtacaagagt 3000  
accttgagtc agaccgtgtg caaaaagagg cgaaagcatt tgcgattcac aaagaacgcy 3060  
ccaacattga acttgctcag atctgccttg tctatcttct agagccaaag ctctgtgaca 3120  
gtccactaga tgagacaagg ctgctgagt ttcctttagc tcaatttgct gctatgcatt 3180  
ggtacagtca ctatagagat gggtccggaa tggagtcagc agccgaagat ttaattctga 3240  
ggctgttcaa taataacgca aagtctttcc tgacatggct gcagctccat gacttggaca 3300  
gcatgcggga ctgggatttg accttgagga aagatttgga agatatacca tcgcctttgt 3360  
attacgcagc ccttttgggg cttgaatcaa ccctgaacac actcataacc acatcagcca 3420  
ataaatccag ccacgaggac ttcgttaatg ttaaagggtg acgttatggc aatgctctgc 3480  
aggctgcac atatgcaggc catgacaaga tagtgcagat actgctggac catggtgctg 3540  
aagtcaatgc tcgaggtgga tggatggca atgctcttta tgctgcatca gctcacggcc 3600  
ataaggagat agtgcagata ctactggacc atggtgctgg agtcaatgct cgaagtcgag 3660  
ggtataaaaa tgctctttat gctgcatcag ctaacggcaa taaggagata gtgcagatac 3720  
tactggacca tgggtgctgaa gtcaacactc aagggtggata ttacgccaat gctctttatg 3780  
ctgcatcata taaaggccat gaggagatag tgcaaatact gctggaccat ggtgctgaag 3840  
tcaacactca aggtggacat tggggcaatg ctctgcaggc tgcacagct agaggccatg 3900  
aggagatagt gcagatactg ctggaccatg gttctgaagt caatgctcaa ggcgagagt 3960  
atgccaatgc tctacaggct gcatcaaata ctggtaatga gaagatagta cagatactgc 4020

tggaccatgg tgctgaagta aatgctcaag gtggagacta tgggaatgct cttcaggcag 4080  
 cagcagctat tgaccatgag gagatagtgc agatactgct ggaccatggt gctgaagtca 4140  
 atgctcaagg tggatggtat ggcaatgctc tacaggctgc atcatataca ggctataaga 4200  
 ggatagtgca gatactgctg gactatgggtg ctgaagtcaa tgctcaagggt ggatgttatg 4260  
 gcaatgctct gcaggctgca tcagctagag gccatgagaa gatagtgcag atacttttgg 4320  
 accatggtgc tgaagtcaat actcaagggtg gatgttatgg caattctctg caggctgcat 4380  
 tatatgcagg ctatgacaag atagtgcaga tactgctgga ccatggtgct gaagtcaatg 4440  
 ctcgagggtg atattatggc aatgtccttt atattgcac agctaaaggc catgaggaga 4500  
 tagtgcagat actgctggac catggtgctg aagtcaatgc tcaaggtaga gagtatgaaa 4560  
 atcctctgca ggctgcatct gctgaaggcc atgagaagat agtgcagata ttgctggacc 4620  
 gtggtgctga agtcagcgct caagggtggag agtatggcaa tgctctttat gctgcatcta 4680  
 atgcgggctt tgagaagata gtgcagatac tgctggacca tggtgctgaa gtcaatgctc 4740  
 aagggtggaga gtatggaaat cctctgcagg ctgcatctgc tgaaggccat gagaagatag 4800  
 tgcagatact gctggaccat ggtgctgaag tcaacgcca aggtggagag tatggaagtg 4860  
 ctctgcaggc tgcacagct agaggctatg agaagatagt gcagatattg ctggaccgtg 4920  
 gtgctgaagt cagcgctcaa ggtggagagt atggcaatgc tctttatgct gcatctaattg 4980  
 cgggctttga gaagatagtg cagatactgc tggaccatgg tgctgaagtc aatgctcaag 5040  
 gtggagagta tggaaatcct ctgcaggctg catctgctga aggccatgag aagatagtgc 5100  
 agatattgct ggaccatggt tctgaagtca gcgctcaagg tggatgttat ggcaatgctc 5160  
 tacaggctgc atcatatgct ggctatgaga agatagtgca gatactgctg gaccatggtg 5220  
 ctgaagtcag cgctcaagggt ggacattatg gcaatgctct gcaggctgca tcagctagag 5280  
 gctatgagaa gatagtgcag atactgctgg accatggtgc tgaagtcaat gccaagggtg 5340  
 cagagtatgg caatgctctg caggctgcat catataaagg taataggaag atagtgcaga 5400  
 tactgctgga ctatggtgct gaagtcaaca ctcaagggtg atattatgcc agtgctctgc 5460  
 aggctgcac agctgatggt gatgagaaga tagtacagat actgctggac catggtgctg 5520  
 aagtcaatat tcaagggtgga gagtatggaa atagtctgca ggctgcatca tatcaaggct 5580  
 atgagaagat agtgcagata ctgctggacc atggtgctga agtcaatgct caagggtggag 5640

agtatggaaa tcctctgcag gccgcacatctg ctgaaggcca tgagaagata gtgcagatac 5700  
 tgctggacca tgggtgctgaa gtcaatgctc aagggtggaca ttatggaaat gctctacagg 5760  
 ctgcatcatg tgcaggcaat gaaaaaattg tgcagatact actggaccat ggtgctgaag 5820  
 ttaatgctcg aggtggattg tatggtaatg ctctttatgc tgcacatgat agaggccgtg 5880  
 acaagatagt gcagatactg ctggaccatg gtgctgaagt caatgctcaa ggtggagact 5940  
 atgccaatgc tctgcaggct gcacatcatg ctggaaatga ggagatagtc cggatactgc 6000  
 tggaccgtgg tgctgaagtc aatgctcaag gtggagagta tgggaagtgc ctgcaggctg 6060  
 catctgctga aggccatgag aagatagtg agatactgct ggaccatggt gctgaagtca 6120  
 acgccaagg tggagagtat ggaagtgtc tgcaggctgc atccgctgaa ggccatgaga 6180  
 agatagtgc gatactgctg gaccaagggt cgaatccaa cccacacaaa taggaagggt 6240  
 tattcgttct tttgtatcgt cagcaatcgc cgtacttgc gtctacatgg gcagtactga 6300  
 cgagcgccag aatcaagtgc aaacgtgaga aatttcgagg aagatttaac ccgtcgtgag 6360  
 tgcctttcct tgaaccaaga atgttaggta cgatgtcgac tgcgcacggc ctgccactga 6420  
 gtctatgcgg attaaggctt cctcagataa cacctttacc tgcctgttat atcacgttca 6480  
 atggaatttt ctctcttcta gtctgtatct aagtgtgat agatagttag tgaggctagt 6540  
 tgtgattgaa tacacattaa ttatttaagt gctagattgc tagccaccat tgcttggtaa 6600  
 ccccgtagag ctatagttat atgaatagga acaatcttcg tagagtgcg ttgagaatat 6660  
 tcttaattat taagataaat tattattcta cttttctata ttttatagct ctctaattct 6720  
 catgttctga ttccggccga ccgccggtgc tctgacatat acgacgcttc atctgagtgg 6780  
 gctaagcgac gttcttactt cgagccatcc ggatgcgtac tacgggcatt acgcggggga 6840  
 cgtggattga gggagtcaaa ggagaaggcg taggcagcgt attatgggga taatctgccg 6900  
 agatgaagag ggtcaaggcg aagcttgatc cgcacatgat ttttcataat ctgcagagtg 6960  
 ttcagccaag gtaatagggt cgttgacag actgggtcac tacggtgggt gacggccctc 7020  
 accgacgggc tatggatagg ctgctgtga tgcattgagt aaaactgtag caggtgaaat 7080  
 gagagaaagt ttccacgttt tgtctgacgt tatttaggga ctttcccgtc agtagcgaag 7140  
 atgatacgta agaaaacgag aaaccctcga gtatgtatct ggacaacagg gctcaggcta 7200  
 aggtaccaca gatgacaagg agctcagtga atgttataag cctgccagag aacgccctcc 7260

gcaaattcct cagtccaaat aagaaactat caatctcaaa gtcaatttct tggaaaagat 7320  
 tatcgaagca aatccctggc ggcgactccc cgtctaaaac tcggtacat acaccgacgc 7380  
 ccgcactggt accacctcta ccctcgccag tgataacacc agcaccaaca ccagtaccaa 7440  
 caccggcatc aacagggcgc gccacccgc ttatctgct ggcaagcctc tcaaagggtcc 7500  
 gtacgcaactg cgacccttac gcacagagat gctgatgcct ccgcagcgca aggagaacag 7560  
 cctcctagct ttctgcaatc gaattcgaaa gagttcccg cgtatcatgg cggcaaggaa 7620  
 actcgcgccg gcgatgtgca ggaagtacaa tcgataccac caggggagga ggccgattgg 7680  
 atggtctggt tcgatggttt caatgaggag ggtgacgac tgcagggcgg cttcgaggag 7740  
 tctggccacc cattccctca gggctgcgtc aagttgtaag gccgcgtcgc tgtatttgtc 7800  
 ttgctgcggc tgcgacgaac ctggctggct tgatctcgat gcaggcatac tccgcgttgt 7860  
 aactgctgac ttggatccta gtattctata gtgtcaccta aatcgatatgt gtatatcat 7919

<210> 5011  
 <211> 2634  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5011

ttatatgggc cgtccgatca attgatgaaa ttgtctctgg agaagtggta agaataattg 60  
 tgggtggttag aattgcggac gaaccacctt atctgacagt acctagctgc ggggtacaga 120  
 agtacagcgt cacacagaga tatgacgaga tagcgaaaga gggcgaaaga ggcgaccagc 180  
 gcagaaaattg ttgcgggttc tgtggatatg gagcaaatta ggcgagcaga aggcagaaaa 240  
 gaaagctgag acagggacaa aagataaaaa ttggagcctc cgtgcggggc tggctgactg 300  
 cggagtgtga ccgatctggg cgccagacgt actggttcgc cgcgagcgga cagctcagtc 360  
 ttggagatgc agagaatagg acggttgaaa tcggcaggta gtatgcctcg cccgagactg 420  
 attcccggta atcttgacga aaaaataacg gagaattgta aattcaggct atcgacgctt 480  
 tgaagtgtc actacacct attatggctg acgtcatggc aagaagctcc aaacctatct 540  
 acatgctcgc aatttttcag aatctaagaa ataatgattt ggaattacca ctctaagta 600  
 caatcagtca actctgatta tatagtacga gcatcagctc acatctagtt ccgccaaagg 660  
 agccggtgac gcccatctgc tgtcctgcac gtgcccgcgc gctacatac atatctgctg 720

tcacccgact gtttccttca tccctctccc cttcttcccc ccttattcaa cctcgcaagc 780  
 ttcaagtaat aatgtgtatc gctctgggtc caacagcaca tccagactac tctttgataa 840  
 tcatcaacaa tcgtgatgta ctccagcctg acccaaccca caagcgaaca aaatagtgac 900  
 caatctaaca gtgtacgcat aggaatatct ccgtcgcccc actgccccag cagaattctg 960  
 gccggcccca aacagccaca tccctggcgg ccgcgacctt gcccgcaaga cccaggggac 1020  
 atggatgggg attacgcgag cgggcaaagt cgccgtgctg accaactacc gcgagacacg 1080  
 tcggacgccg caataggaca gcagtcctgc ggtgccattg tcaatagttg gcttactaga 1140  
 tccaaaggag acggaggcgc agatgcagac gccacgaaga catacgttga ggaaatggtc 1200  
 gccagcccaa cggcccgagc tgtcggcgga ttcagccttg tttgtgggta cgtgaatgag 1260  
 ccattggcga ttgtgtcgaa caggtcaagt accatggacc aaattacatg gattgcggag 1320  
 aagaaggggc agacgaaggc gttgagtaat actgtttttg acgatcggag ttggccgaag 1380  
 atcttggatg gtgagaggct ggtgggggag gcgctcaaga agcatgtaga ggaggagag 1440  
 ggagagaaaag agctgattga gaggctactg gacgtgctga atacgaactc gctgccccgag 1500  
 ttgaaaggcg atgcgacggc ggaggattat ttaccatatt tcaggcagag cattttcata 1560  
 ccgcttattg ggacgagggg taagacgggt tcaaagtttc ctgctgcggc tgcggagatt 1620  
 ctggagccgg ggtcgacacc atccgtctgt gctgaagggc acagcaacgg agtggcattg 1680  
 gatccagcaa ttgtgaagga ggccaatccc ggaaacgatg taatcgacca gtcgtacctg 1740  
 catggtccat acgggacaca gaaacaaacg attatcctgg tgaccaagga aggccgagtg 1800  
 agatactttg aacggaccct ctacgaccag gaagccaagg ctgttcctat cggtcacgga 1860  
 gacaggtcgt ttgaattcca ggtggcgcg tgaaccaagc cattggaaca gctactcatg 1920  
 cgttcttcca tgtccatagt tccctcgact tgtctcctct caacaaaaat gatttatggg 1980  
 ttacgggtta cgacgagcct atgctgggga catttgtata tgactatggc tgaataagca 2040  
 ctctccact atgaagcggc tcgccaactt gcctcccttc gaggatcaca gtagtcgcca 2100  
 taattctacg tgtctatctg cgtcgccgca gatgtgttgg ttacaaaggc taccaatcgg 2160  
 agatcaaaac cgggcaatac taataaacca cttccaatga gcctacagtc ccaaggctct 2220  
 aggtccaact cgatcaataa tgtttgtctt ttccgaaaaa acacttctga agagcgtggc 2280  
 ttgcgcgaca acacagagtc tagacgccac cttacctgtc acaccaccag ttaatgggtg 2340

aactgacaag cccagaaatg cgacttcttg gccctgggtc ccaaactgc cgaagtatac 2400  
 caagggagag ctcatgcctc actctgccgc atgcaatctg acaaataccc catccgcagg 2460  
 cgcaagcgtc aatgtcagcc catacctaata ctccctttcc gggaaacagt ccatgattgc 2520  
 atcaaatctc ttgcagagcc taacaatcac atatcccgcc tccgtgaggg caaactgctg 2580  
 acctatgcat acccttggcc cgccgttgaa ggggagatac tcccacccaa cttt 2634

<210> 5012  
 <211> 14643  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 5012

ctgaaggcgt gtgaggtcgg ccagtttccg ttccattgcc ctcgtagca taagaagata 60  
 aggaggttcg aatttgacga atggctacgc agatcaaagc ttcggctcat ggtagcgaac 120  
 attatcttga taatacgtcg gcatgggaac atcatcaggg acttcgacga cgtcgttcga 180  
 cacactactg tctgtcttat cattctcaga attcgttgac tgtgctgtac tgtcatcctg 240  
 agacgatgag ggatgtagtc gttgttgac ttcatcgagc ttcttctcaa ccataggtga 300  
 tgtcgggatac tgggcaaatt catccctcat gacgcaggtc tctagtctga ggttatacac 360  
 gacgtaggtc ataaactcgg ttatcctctt cacttttgca agtgtatctg catttcctcc 420  
 gcggagcact attgtacagc caagttcttt tcggcaaccc gagatgtaaa tgtaagtctt 480  
 gcgctggcct ttgtagacgt aggtttttac atcgaaactg ccacattcgc tggttaccgg 540  
 ggtggtcaca agtttatcca tagaagtgat aattcgggtt tgcgtgcac ttgaaacagc 600  
 ctcgaggact gaggatttga cgttgtagac agttgcaatc ccggcgcggt ctagtagttc 660  
 caaagccaag ccggaaacat tcttctcaac cagcaataaa ttaggccgta atgctgatat 720  
 tcggctaacc agattttcaa ggaactcgcg ctcttgccga ataacatgct ccaagctcat 780  
 gaactgttgc tgatgacgtg caaattccaa cgcgaaggcg atgataagaa tttttggctg 840  
 aatgatactt cggggcatgc tcttgagagc aacgtttttg ctaaagacca agccggagac 900  
 gtatgaagta tcgccagggc gtccacctgg tattttcttt aatttgatat aatgacgaat 960  
 gtccatatac tcgccgttct ggactaacgg gtctacttca tcggctgctt tcagtaatat 1020  
 tggaagtagc gctgtctccc agctgcgagg gtgtggtaca gaggagtcac ctaggagttg 1080

tcgcagcagc	ttacgaacat	gctgcaaact	agctttgccc	atttcaactg	gtggcgcccc	1140
tgagcctcgc	atggaggagc	ttctagtcac	cttgaagccg	ctagaattca	gagatgtagg	1200
taaagcttga	cccgcatttt	gaggctcgta	agggttgaat	acagcctctt	tcgaagttcg	1260
aggggagtg	cgatggatgc	tgctcgcgac	gctgagattg	cgtcggcgag	aagaacgggg	1320
taaattggca	gctctgaggc	tgttcacgct	gctatcatcc	aattcgcggc	cggactgagc	1380
aaagccaggt	ggtactccgg	tcccaaacg	cagaccgacc	ctttttcata	gaggcgaaca	1440
agccaccaag	catggtcctt	tctgtgtcaa	cgccactttt	gggcaatgaa	ccctcggttg	1500
ctgctgaaa	gaggtttggc	tgctcatcgc	cgctcgatgc	atcgtcagag	agatattgcg	1560
cgaggtcggg	atcaattatg	ttatccttgt	gaaaagcaga	aagcctcggt	tcgaaaggtg	1620
aatcatcccc	atgacggcgc	tgaaaaggag	ccggttcac	gtgatagggt	ttgaaatttc	1680
ggatgacttg	ctggcgggaa	tgatggcggt	tgtgacctat	agaatgggac	cgaccgctca	1740
aggtagactt	caagcacctt	gatgatgtgg	gccgcgccaa	tggcctatct	gggcttattt	1800
caagaatggc	cgagcggcga	ttatgtcctt	ctccggcacg	tctgggtgct	ggaattgcc	1860
ttgtaggcgt	tttatccggt	gcattgagag	attgagaaac	gatggaggct	gaatcatcat	1920
cctcaagacc	agcgcgtgaa	gagtttccga	tgctgagttc	ggacacgcga	ggattggcca	1980
taatggggct	ttgctcactg	tccgagaatt	cagacgaatc	gtcgtcatga	ccgttgatca	2040
tatgctcaca	gggcttgcat	acacggatag	ttcctgggtg	gccaaatttc	tcgcctgaga	2100
taaggagcgt	acattttgaa	tcaaagattt	ggccacacgt	gcgacagtgg	tgttttcgcc	2160
gaaatgttga	gaaaggttcc	ccgcagtga	aacagtcttt	cgcattctca	tcacgcatcc	2220
aaaaatcctt	acttagtaat	ctacttctga	gctgggttac	gacgccgtcg	ccggcatttg	2280
gacggcggct	ctgatttcga	gacggtattc	tgtcaaaggc	agtgttcaga	ggcgtgatta	2340
tggtcgggga	gcccattgga	gtgttaactg	atgagatctg	tgacgctgga	taaccaggca	2400
gacgaccgga	acgagtaatg	ggcggctctt	ccttactttc	agtctggggc	cgagacttga	2460
gtgattcttt	tgactgagcc	tccccatcca	taaacgacat	ggacgtagcc	atcggtggaag	2520
gcgtacgttc	ttcgggtata	gcgctgtctt	ctccgcttgt	aaactgattg	acgctatccg	2580
ctccggaagc	cggtgcagcg	atggtagtat	catgttgcat	tgatacagca	gaattggatc	2640
tcgtccggtc	ggtgggaaca	ttgctgtcct	gcgtcccatc	tatcgaccgc	ttggccttcc	2700

ggattgagga cgaaaagctc gatatccattt caccggcctgc tcgtccatct ggtcttcttg 2760  
 agctatcgca aacttggtt ccaactgtggg tactgccggt ttccgctcct gccgggccat 2820  
 cgtaaacatt attataagac ttcgcttgca gaactgggga gtgcgttctt tgctgactcc 2880  
 aaccggatga gtcagtgac gtagttcgtg gaagagaatc gtgatcgggtg ccacttgagt 2940  
 ccagcatttg cggatcagtc gatggctggg tgttgatata gtcactcgtt gcacgagggg 3000  
 gctctttaat cgcattgaca tgtacttcgg taacggctgg atctacggcg ccagaatttg 3060  
 caagatgggtt gggtaatgag acgttatgag gtcgtgcagt cgcagatgga gcaactgagg 3120  
 ctttgagca tatactccca gctttggaag agactttgga ggaccttgct gcgcctgaca 3180  
 ccatggaacc atcatggaga gacgggtgac tcaactgaggt tggcgagttc actgccgagg 3240  
 gtaaaggaga gctggtatat tgctgggtt caacagacat ggaatctggg gtacgtttcg 3300  
 tcgtctggcg atccgacggg ggacgcttcg ggtcctctgc agattttcct accccgctga 3360  
 ccataccgcg catcccgccg actgaagtc gtattcgact atatagtcca ctcaggccgc 3420  
 cctggatctc atcagatatg ctcttgctg cagcagccga cgcgggggta ggcggttag 3480  
 cgaactcgtt gaacacgggtg agggcatcgg actggtaggc tgctgtatgg atctgatcca 3540  
 gagcggcggt caagctgtcg cgttctgcct gagtcgataa agatgcgcga gagcttcgtc 3600  
 gcccgagtgg gagaaaaata gaggatgctg atggactggg tgtcccatga gacggttggg 3660  
 gagccatata cttatttttc ttgtctggca tcgatgggaa agggcaatgc gtcaacaagc 3720  
 agagatagag gccctgtgaa gaccaccagg tacgggttac ccggtttgctg ttagcacaaa 3780  
 ggagcgggtg cgaccatcca ggctaactctg ctgcggagac gcttcgcgtt ccgtgctgca 3840  
 tagagatatt gtgtagtgga agatccatgc aggactgtgc ttgtttcaag cctgagcact 3900  
 acatcgaata taactgtacg gtaagtgtg atcgaacaga tgagcgaggt tcgttgaaga 3960  
 ggggaagtgg gatgagtgtt gagctgggcg ggttgttgtt tctatcaagt ccagcccggc 4020  
 ctggagcctg agcgccctaat ggtggatgac gtgggatgtg gcaggtgact acctactgtg 4080  
 gctagtaaat ctgattgacg gttgtggctg tggcaacgcg acgaccgcgt cgaacagtgt 4140  
 caatcaagcc gtctgttcgg ttcgagggcg aatgagcagc gattcactct gtagctggcc 4200  
 gtctcctgac tgatacagca tctctcctcc atgaccacca atcacaccgt ctcccagctc 4260  
 tcagacgcag aacatcccac tgaaagtctg tgacctcaa cgcgcattct cagctagctc 4320

caaagaagga tatgatgtcg caaacggccg caaatgagct caggacgcag ttctggctaa 4380  
 gtttacaatg agctcatcga accattggat ctactcttt gttgaacatt gcctttcgag 4440  
 ctacgagacc gggcgacacc ccggttcgga ttgggaagac gatgggagca acattcgggt 4500  
 ttctctctcc gagcaacagc ttgcacggat taccgaggta ggttacgggt tttattattg 4560  
 caggtatcca gctgatgggt gtcttctctcc gcagtggagc gaagtaaaca atgttccccg 4620  
 acccagattg agcgacttgg atacgcaa atgaagcggtc ttgtcaagt gatcgttgca 4680  
 ggagtataat aaggattttc cgaataaacc gctcaatcgg gatcgtgcc taggttatac 4740  
 catccagttg gacgatttcg agctgggtga cgaatatcac gccggaaaac caaacgttca 4800  
 tttgtatgtc aagcgtttca gcatagtatg ggctcgtgat aaggccaaag agccgccgag 4860  
 ggggaagcta gtcacaaaaa aaccgcgct tataacgctc ttaaaacgtg tgctgtcttt 4920  
 gctcagatct gggcatcagg caatcgaacc aagccaagaa acagtggaca gtagcgggca 4980  
 aaacaacggg gacggcgata tctcgcgga tggccatacc caacatgtgc ggcacagtt 5040  
 catgtcccag ttgcctcgt ctcatcgaag gtctcctgtt caaagcccaa tccatgatgc 5100  
 ggtgctcaac tcgggtaagt tgttggaaac tttagagcag acgcgatcct caaatgatcg 5160  
 acagccgagt cgggatatat ctttagatgc gcagcaatta caaccaatat atgggcctaa 5220  
 tgcagtaaga caacgaaata cacatcatat gtctacaagc aatgtgagtc acgtgcaccc 5280  
 tgaaaagcaa ggagcagcag aaggagacag aggaacaccg acaagtgtta gttccgaacc 5340  
 atttataact caggctataa atcgtccatg ctccgaaaag gcaaccagac aaaacttttc 5400  
 gccgcaaaaa gcagagcggc agtcaccaag aggggcagtt gagaggtcag gatactcaaa 5460  
 ctgcctgaa aggcaaccac agtctcagct tcaatcttgt gaagatggca ttctctgcc 5520  
 ggctagccct gataagaatg cgaaggcaaa aattgccgat ccgtgggaag gtatgacagg 5580  
 aatcagcagc gttgatgtta cagtgcctgc cgatcagaaa gagcttttgg actccaaccc 5640  
 aacgccgtgg tatccgctc cggatggatg tcaactagcg tcaggaaaac tgccaagggc 5700  
 gctgctggct gagtggaaat agttggcttc ccgacggaat caaattgaag acaataagcc 5760  
 aaaaactgtg gatgatactc gtctagcac gccggttagt gagacgtct ctgagtcgct 5820  
 tgcagattct tgggttgaaa cgcccaatcg aacaccagc cgtggcgtgc tgctgccgag 5880  
 ggatagtagt ccgctcagag ataactccgt gcgtcctcag agggcgcaga gctcagggga 5940

ccaacatagc cttgaaaaca acacagactc gcatatgcag atggtcgagg aggaaccagt 6000  
 gtccgagctt gatagaaata cagacccgat atccaaagcc tcggtagctg ctatggctga 6060  
 gccaaatgcg aaagccattg cgccagatat ggtttgcat gatggcgcc atgttttaga 6120  
 ggacaccag tcaaactcga ggatggcatc tgatgacagc aattcgaact caaagataaa 6180  
 caatgcgcca ggcgccaggc ctatcgcccc aggcataggc cacgatgacg ggcatatac 6240  
 caatgtcaat tctgaatcac agaaggaccc tgcggtagat gccgggcaa ttgccaaggc 6300  
 ccaggttgac aagggttatc aatcggacgg cagtttcta tctgacgatt ccgagaaaaa 6360  
 cgaagctcca gacgttgaaa tctctaatac agaccctgct cttggggcg agcaggaatc 6420  
 tgaaagtagt tctgattcag aaatgagcgt ggcaattccc cggccgctaa gtggtagcac 6480  
 gcaacaagag acatccaccc aaacagtatc aagcccagag ccgtctcttt ctgaattcgc 6540  
 ggggcaaat gttcagggtg tggaaccccc agcggttctc agcaaatcgc gtcccgact 6600  
 gtcgggccag gatgcttcaa gaacagacct cactgaaagc cagtctcaac cagacaaatc 6660  
 ctcccaatca cgcattctca acacctagc cagtcatgaa ggagacagca atggagggac 6720  
 atcacaatgg aactccatgt ctctcccagc aagtgcgcca gactctttaa gttgtgtaca 6780  
 tgtaatgggc acccgttga gcagccaagt ctcaccaacg caaccaactc cacggtcacc 6840  
 atcgaattct atccatacat cgtcggggcc gaatgttgct gagggtagtg tacctgctgc 6900  
 ttctttatac caaaccagc cgtccaaggc ttctcatcc catcacgaac cgcattcgtc 6960  
 atccatgttg tctatagacg atctctcaa tccaagcata caaagctctg tccaaggcag 7020  
 ctcttttaga cccgaccgca cgtctccact gaaacgcctt gcatctgaaa ctgacagcga 7080  
 tcgcggtca ccttgaaac gaagcaaatt agatattaag cctacggtag tcaaagcaga 7140  
 aggcggactt gacgagacta ttatcgccg ccaccagaac tacatcatca actcagcaca 7200  
 gtccgtcgaa gcagcagga tttatgaaaa attccgaggc gactaccga attatgccg 7260  
 taattatgaa cactttataa aattgtgtc caggttgagg tcatttcggg aaagggtag 7320  
 tctacaaagg tcatttctgt gggatgactt catcatcaaa aatcttgata cttatccttc 7380  
 ctaccttgcg gaggccact acaaccacat caagcccttg gaatacgaag agtatttcgc 7440  
 agagaccttc tcaaagcaa cttataaaag acgcagcctc gacattccag gaatcaacgc 7500  
 gtgcggcg caggttgatc ccatcgatga gtctgtcgag tcacgggagc cggacgacgc 7560

aaaaacgtca ttcacagcaa gtctcagga gcagctttcg aaactccata ctcatcctt 7620  
 tgcggtgcaa gacccaacgt ctcggaatgc agtatctgaa gatgggtcaaa acgccgcaga 7680  
 gtcagattcc acatcgcaat acagcattcc cgacagcgag cccgctcgcg ctgcggtccc 7740  
 ggaacatgac gatgattaca tgaacatcga ccacctacag gagacagatg acctgcatac 7800  
 tgtatgggaa aacagcgacg aagacatgga aaacaccggc atggacgttg atgtcgatga 7860  
 tacggggcac gaaacggcga gcgttgagct cggcgacgat gagacccta ctgctcttct 7920  
 aaccctgca cggcacaggt tttgctcaga gcccacact gacagcctag taccggacag 7980  
 aaacaacaag cgcggtgttt catcgccatc gacgtcaaga cgaaacaggc tcaactatcca 8040  
 tacaacacca gagagatcaa ctttaggcat agcctccaag gcagcctcgg acgaaagcgt 8100  
 tcacggagac gccaaacacg cccttgctcc cagaaacaag tctcttaca gccaaccaac 8160  
 tttagagacg gctatagacg cggcgctcagg catgatctta aatacaagca ctggcttcaa 8220  
 agcgcccagc ccaaacaagg acaaggagcc tgctcatgtc ttaactcaa agcgaaacaa 8280  
 gttccctaata ggccagggtg tagagacccc aactccagga acaacgtcaa accactccgg 8340  
 ccgaggcatg atcgaaactg ttatcgagaa cagaggctca gccataaatg cagccgcca 8400  
 ttccaacatt gaagcacaag atactgagcc ctaccccggt ccaagcccaa tccggaaaac 8460  
 ccatccagca ctccggcggc cagagagacc tacttctgct tctgcaggcg cttcagtccc 8520  
 agacaaggac cacgatgatc atatcggtat ccataatatt aacaatacaa atgacatctc 8580  
 agaaaccgag gaagtgcgtc tctccgctc acccgacccc aaaggcaagg gtaaattccc 8640  
 ccaacaagaa gcagaagatg aaagcgagaa tgagaactgg ttcacctcac tccggcatat 8700  
 cttccctcag agaaaaagta caaacctgt ctggtccgac gatccccaca ccccttaaa 8760  
 gcagtgggcg cgcgcagacc agaattgctt tctagtgcga aatcagcgcg gcggattgaa 8820  
 tgttcctgtt gacgagaggg gcgttattgg tcggatcccg aggaagacag gactgaacca 8880  
 gggcagcgag catacctaga ttttaagcctt tatgtgtgcg gttgtgatag gagaagagaa 8940  
 gatgcaagac gacgatagcc aatgatatac ggagtaactc tggactatct ggctatatgt 9000  
 actgaaatga taaaagcctg cgagccatta tccatatgca gatgcgtatg cttattccta 9060  
 ttcagtttat atgggtattgt ttatatcgtc atgcatgtct actacttaga tgtgttatgt 9120  
 ctttcttcg gccctaagc tatgcatcat tccggttct tccgtagac cggagtgagg 9180

gaagtcgaca tagcgggctg gtatctctat tggggcattg cgggttattt atacgcttac 9240  
 ttctgttcta cttgatcgtg accgggtgga tttcagttct gatggcggtg gcactgtagg 9300  
 agtgagagga aatgaggtat cgcaggcgca atatagacta ctaatgcttt atccatctgt 9360  
 gaagttgata ataacttaat atacttgaga tagctacaat agggaagata tgcttctaata 9420  
 gacttggtca ttctcagggt atcggttatca taaaaaatct atctacatgc caaaccatgc 9480  
 cgagccagcc attgacgaat agatagataa taaaacaaaa atgaagaagc ctttccatat 9540  
 ccatatccat atccaatgca atcgaagcat attccaggta taaatcaagt cagtgcgaact 9600  
 tgcataatgt cgtcactctt cactcgaaga ggaatcgagc caaagataat tttctgcttg 9660  
 ttttcttatt tttgtgtttt agacgtggcg gtatggctca taggcgggtg gccgctgctg 9720  
 cgcagagtag ttagggggcg tggcggtgaa aggcgggtga ggcaagggg agccttcgcc 9780  
 gacgggctcg taggtgtaag ggccttctc ggcagtgatg ccaccacggg tgcggccgtg 9840  
 acggtggtta tatggcgagc ggccggagca gcagcaggag ctgatggccc agaacaaagc 9900  
 agcagcaagc gagaaagcag tggcgagcca ggtggcgggc tagatgttgc ggcccatgtg 9960  
 tccgtcgatc ccgtacggct tgatcttctc gttgaagact ccagcgataa cggcgaacat 10020  
 ggcggtcgaa gtagccgagg cggcgggcgg gaagaggaac gctgcgatgg cgacgagggg 10080  
 cgtcacacag gatccccaac ggctgaagat ggccgtgata ccgaggagga tctcaagacc 10140  
 ttagcgggcg aaggcgatga tataggcaat gcacatccat ttggagacgt tcttgtacac 10200  
 attcagtgca tcctggagggt cgtcgggaat ggcgttctgc aggccaaagg ttttgagatt 10260  
 ccagacttca acggggctga accagaactg tgcttctgga gaagagcagt tggtgacgcg 10320  
 gtagtcgttg ttgttggtga cgttgccctg gcagtagccg aaaagaccga tattgtagaa 10380  
 atcagggatg ttgaagtact gctcgacttc ttctaaagcg gacccaagat cgccatcgtc 10440  
 gacggaaatg ttcagatcat cgaggacgct agaaacggag ttttgtatag gtgcggaact 10500  
 attcagatct tgcagatcgg cctggaaacg tcagctgatg ctcgcccac atcaacaaat 10560  
 cttgagagta aacataccct gaaaaagtag aggtcgcgaa gagagtcggg gccattgtca 10620  
 gtagagccaa ggcccacaac gataagacat attaaggcgg cgatagttag gacgtatgga 10680  
 gtgaagatgc agatcatgcg accgccttta cccatcttga gagctgaatt tgggtcggag 10740  
 aattaggcga gttttgtgag gtcgatgtag ggatgaggat ggcaggcgtg aacagtgatg 10800

gattacagat ctgatagcga gaagagggag gatcaggata tttatttatg aggctggaat 10860  
gatgagctgg aaagtaagag gcgcagtgag cgacttcgcc tctttctaaa ttaagccaaa 10920  
acaaatatct gtggctgacg gtcggtttaca ctaagccgta tttggaaata ccacgcgtca 10980  
ctgacgtctc gctcgtctta agtatcagtt gattacagag tacagagccc tgggatttag 11040  
ttgccttgct ctatagctta gatagagata tctagcgcta actattctgt caatgtaatg 11100  
ggattggcct ttactggatg gcagccatga atatattcca tatgaagtca gcaatgtact 11160  
agagtattta cagtaggctt cactattcca gtcttggcat gtcccattgt ccacctgcaa 11220  
tgtccccccc acacgccctg gtccagagta tggcagaagc ttcgtaatcc ccggggcccg 11280  
ggttaggttt taattcgacc gctcagccac agcaaattct tcacgctcc aggcatctat 11340  
atttcgatct tccaactggg taatgctcag ataggctcat atacgatag ctaattttcg 11400  
tctccggcaa ttaagagctc cagtaaacca ctagacagaa tttgcagctg agctcagccc 11460  
tgaggagtggg tctatatcat gccttattgc ctggaatttc aggcataaaa ggtccagtgc 11520  
cgggttgctc tcccggcaac gccaaacct gacctggtat tgactccaac tatcatcaat 11580  
ttgttgagtg atctgcatgg cgattattgt agtgtgatc tatcttgaga tactcaatat 11640  
atgtgcaaga cgctgccgtg ctccagaccg ctgtttgacc tgccaatccg catagagtgt 11700  
cacagggctg ctgctattca agactcggac ctttcaatat cacccttcca gccgtcagat 11760  
agctggaaac cctctgtagt atctaactcg atgattgaat aactcaatag ggccaaagtg 11820  
ggatattgtt taggtagggtg atggtaatta cacagagaag aaagatatat tgtgaatata 11880  
tatatgtgga gcagatcctt ttggagtatg gtgcaatata tactatcgaa ttaagcgcaa 11940  
cgggtaaccc gttgggtgctt gaatacatca aatttactta gagactacag atatccttgt 12000  
taatcttagt ccttgatata tgtgaaacaa atgcctatag gatgtgcac agtggtgatt 12060  
cggaaccacg gcgtagtgac agccgcagtg gaggcaccgt tctttgctct tcgactacgg 12120  
acatgttgac tgaaagaaca tcttggtata caacgacgaa gacggggacg aagacgtgca 12180  
tgcttgggc cacaattccc ccgtttcggc gccatcctca acacaatcgt gttagtctcc 12240  
tgccgcagta tctagcgctc agcccgtcac gtcccgcccc gacctcgacc agctgcctat 12300  
tccacgccc gagccattcc ccaatatctt gcccttacc atcaggggtga agtatgggtga 12360  
gaatgtagat catagcggcg ggtaggaggc taagcccatg aggtcaaggg ggtagcggag 12420

caatgggtct gcctagacag ggagacggag taggcgagaa tgggagctgg cgaagagtac 12480  
 ggctatgcat aggagaccgt ttggatatgg gatcggttgtt attcaataaa ggttcacgat 12540  
 tctgaaaccg gggttatacc gccataatca ctatactcgc agtcagtccg taatcaacgt 12600  
 tcatatcaat atccagagta acaaattctcc gagacgactg gctcaccgta atagagcaac 12660  
 cgtactagag caccaaattg caatcaaattg ccgatctcta ccgcgtcgtc gtgagataga 12720  
 agcgcgtgta cggacaaagc ccgacagcca aggcaatcag tgccgcagcg gatggcgcac 12780  
 gctgcctatt gtgggtcggc catgtatatt ctaagctaatt tccatgacgg ggtacgttgg 12840  
 acctacgccc gagcagatgt aagatgagag atagacaaag tataaagtac ggagcccaaa 12900  
 aagaattgag gatgctttct ttatatactg aaacatttca cagagtagag tgcctatata 12960  
 tcacttggac ccaatgatca ggacgaggct acaagcaacc cataactcaga taacttaatt 13020  
 catgtacgcc tccaacgtac tgagcatccc cgtatacgca atgccatccg tcggctccat 13080  
 gctgaacata tagtcttccc accaaggccc agcagcccac caaagcgcac cgagccaaac 13140  
 atcatcgctt tccttcagcg catccagtag actcttgacc gctgcgcggc atatctcggt 13200  
 attgccgccc gcaaattcac caatgacacc gagtttgccg ttgtctttca gccactgcgt 13260  
 cgcggtattca acctctcgg cgccgattgt ctccgaaaca caggtctcgt gtgttccgga 13320  
 gccgtcagta tcgaggtact ggtgcatttc gtagacgac ttgtcctgcg ggtcggtgag 13380  
 ggatttcagg ttgtcattgt tgtccgtcca tgtccaggcg ccggtgtacg agttaccctc 13440  
 gacgaagatg tattgagagg tggcgccggc tgcgcggatg ccgttgatgg cggttggtt 13500  
 gagatccagc acgaggggtct ggtccatgtc gtggaattcg ttgtctgccc cagacgtgtt 13560  
 agctttaaga cccatgcaga gagtaatata caagagaaat aaaacatgac cgctaacga 13620  
 ataggaatga catactggta tcgaaaatga cgttcttatt gtccgcgaac tcggccgcta 13680  
 cgttcttcca ccaagtctgg aagtcggagg cgctgcttat gatctcgccg ttgctgggtc 13740  
 tattagtaga tgcttctgta gggtaaacca ggggcgtaca atcggccaaa gttttgggcg 13800  
 tcaacgatgg cccatgctcc tgcacggtg actgcattga cgacctgatt cgtagaaga 13860  
 agtcttacat cgacgaacag agccatggac gtaccgaagt cagatttttc aggtatcctt 13920  
 cgtcgaaaga gcccgtcac tcaggcgtca gacgtccat aaggaagggg atgcggaaag 13980  
 tgttgaaacc cttcgagatg aggtcaaga tggattcagt atcggggaag gtgtagtcag 14040

tgccctgcat ttgcgttcgt cagcctaggt cgcattccaga tggacctcta ggcataacca 14100  
 aacaccagga atacttttct cgccgaactc agcgccagcc tcggtgactc caaaaactgc 14160  
 ctagatcagc aagctacctc aacaagctgg agaagggtga cgccgtacac gtaaaaccgg 14220  
 cgcgcttctt gagctggggg gcagccatcg cggtagcagc cgctacggca accaaaagag 14280  
 tgttgacctt catattgaaa gagagaaaaa gaaagatcga atgaatgaaa gaatgaaaga 14340  
 aacgaatgag tcaagcgatt cgaaggagcg acggtagttg cttgaaaaac atggtgaggg 14400  
 cgaactcgag gccgctttat ataccgtacc gacttcaggg tttccaggtt gctcgtagat 14460  
 cggcgaaaag tcgaagacat cagacagccg gcatgtacag ttcaatacaa gctccagagg 14520  
 ctgtcaatct gaaaccccg atttccaga aacgtgggtg cgtgcggctt gaaacacaac 14580  
 taatgcagga cgaacgtgtc cacctcgga attgaccagg actcggcccg ccggcagtga 14640  
 gga 14643

<210> 5013  
 <211> 6129  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5013

cagcgtgggt gccctgccgt acatcgctgg catgtctttg tcatgctgtt cttagtatcg 60  
 ttagtgcaac tcctattata ttatcaatag agtacaatgt cacctaccaa ccaggagaga 120  
 cgccactcct tgtcttgcaa gactgtacgc aacagtcaag ccgacaggcc accgccaaca 180  
 ataagaacat cggactaat aactgagac attgctttga aggtaagaac cattaagcag 240  
 cgaaggatga atggtgtatg aggttccggg tgttttggtg tccttttata ttcactacct 300  
 cccggcactg tcggatccga tccaatgaag aatcaacaag cctctacacc catggtcatc 360  
 aatttgtcat ttgggagggt cggcctttgg aaatccttct catcaggcgc tgaagagagt 420  
 aaaaaattcc tatatggtat ggtcatctgg tgtatcggat aggggtttct aacaatataa 480  
 agagctgaaa aagcgtatcg gaatgtaacg gtaagtggat cgaccaaggg caatgcctct 540  
 gccggatcaa caggatgtta atagttgata tcaaaccagg accagtcaag cgcgacattg 600  
 ttgaagtcaa tgtcttcaaa gaggttatct gaaaaagtcc cattcgctgc cccattctca 660  
 tgagggtccag acctattggt ctctctagtc tgaagcgcgt tcccatcaca gcgggttgaa 720

tctataacctg ttaacccagt caatgcacgc agagatgctg gcttaccaca aattttcaga 780  
catctggatc tcgtatcggt cagactgtga aagcaacgtt cggccacaac gctgtaagtt 840  
cctaggtagt tgagaaccca ctggcatttt tcccatgcgg cgtccaaagc ttcgcgggtg 900  
acagccttta cagcccggtta tggaactcgg cgagaatgag gaccaaccct gcagtgaagg 960  
tgtctaaaaa gtaaataatca gtattggaat gagaaagtca atccaatcac acgtacaaat 1020  
acgttgtaaa gccaaacact tgccaaatcc gtgctacatg tgtcatgcac aagggatatt 1080  
agttcaatgg caggctgagc acacaagacg gagcaattca cgttcaggtc ggaatatatt 1140  
ccagataaaa gcggtcfaat tggtctgctc tcctctccct ttccaaatcg cactttgccca 1200  
agggaccaag atagagccag cctataagct aaaagtctga ggtttagaaa tctttgcgca 1260  
aatcagtcta atcctccatg gaaactgcgt tacttccac tcaccaactt tgagcagaca 1320  
ctttctctc agtgacggat ctgggaggtc aggggtcatg tctcccaac tcagcggttt 1380  
tgggacattc acccgaaatt cgtctaggtc cagttcaatc tgagtaataa attggacctg 1440  
tcggacactt tgagccttct tatctgctga acctcgacag tgatgttccg cctcgtctc 1500  
gtaaagtatg ttgtgaatct ttcgcagcaa ttcagcaat ttcaaagtgg caacgaacca 1560  
ctcaacgcta gaaaatgttc cagatgggtg ctggcagaca accgcttctc cagacagatg 1620  
caatcatcaa ctacttcagg caggggaact agtgagtgtt cagatgtcat cgccggacgc 1680  
ccaagcatag tactagtgtc tctaaattcg gttatcatgg gccattggc ttcagtactg 1740  
ttacttacag gtctaacatt ctacaaccgt gccaaactcg cctcctcatc tgcttctggg 1800  
caaaggaacg atgctcgtcg ccaacagtcg catgtagacc gagcccttga gccagccgaa 1860  
atgcagttcc gatagcgtgc aaacagcggg tgggagtttg cgaaccttgg agataatggg 1920  
ctataaacag aacgacctga actagagcta agtctccacg ctcgaggtaa tccacgtcaa 1980  
gagccggctt gcaccgatga aagaaagctt cagacgttgt ttggcgctca acacacatca 2040  
tttctgaaaa ttggcaccca tgagcgaaga caatatttaa ccgtagtaaa aggttcttgc 2100  
gctaacgggtg gagtcgcccc gcccggaagg agtgtttgtg cttgtgtcta tacggtcgcc 2160  
agacgtccag agctgctgat acgcgaaaga aaagctttct tgtgtacaaa tggatacaga 2220  
acgtgaatct tggtaaagta gcagtccacg agatgggtctg ctagtgcgcg aggcggaagg 2280  
agatccaatg cgatgtccac gcttcttgta ttcttctcaa tgaagggtat ctgggtggta 2340

tcagaggctg cagaaggccc cggagaaagc tcaccagatt tcatggtttc ctgcagccgc 2400  
 tgtgaaagct atggccgaag agtcaccaa gggcccttt tgatttatcg tcatcaccaa 2460  
 gaggacgagt agtaaagccc attgccgtga cttcaggctc gaactaatcc tcaactggca 2520  
 cttgctcttg tgcttagaga tcggagaagc ctaaattggt tctaggcggt ttatctaggt 2580  
 tcgaagccta tcacgacatc agacataacg acttcagcca tttcgatagc acacttactc 2640  
 gaaattctga ccatgttgtc atcgccgtaa acacaagttt ctcgacggcg acggcgaaga 2700  
 caagtaccac atttccgcca aatcccatca cagcggatct tgtgcacacg gcaggggtta 2760  
 caggcaacac ctacccttct ttgctttaca attcggccga cttggtatga gccactcgga 2820  
 aacattctca cagcagactc ttgcctgcaa ttgtaattct agaagagtgg gcagaggcat 2880  
 gcccaaaaag ggctgtcagc ttggattcat gactgtctaa gactaattag tcatgacgcc 2940  
 tttttggctt agcgggtatat tttctgataa agggaaagtc gcgggctttt ctcatgcaaa 3000  
 tcagcctaac cccaactcag actagtccat cacatgacca agatacataa aatttccagc 3060  
 ccgcaatctt ttcttttctt ttcccaactc ctcgctcaaa ggatcgcat caaagcttac 3120  
 acacagagaa ttttccagtt ctctctctt ctaccaagaa gagtcttgct ttgggagaaa 3180  
 gtccccggac accctgtctt tcgtctctgg cgatagacag gcaatgcgga aacgcgccgc 3240  
 cataaaagca atttgatagc ggctgactgc cctattccct accggtgctg agtgcgtact 3300  
 cgacgcacac tgtgtggaaa caatggggta tacctctgtg ccggagaggg gtttattggg 3360  
 ttgcctttcg tcgtgtttgg atagtcatgc gattgctcag ctactgagtt agctgggtaa 3420  
 ctcaatgggg ctcatcttg aggcgaggag ttcatatctt ttgggtcggg agcttattga 3480  
 aagcggggac tggccgagag gtgcgggagc atatgctctg tcgaaggggc cggactcttt 3540  
 ttcacatca atgtcccttt tgataatccc ctttacctt tagactgtaa tgtggttcga 3600  
 tgatgatata ccaatcatag agtcaaggcc taaaactcct actacggtat ggggtgggta 3660  
 acgataagcg agtggttctt tatctgtcga acattatcat tacatgtcat gtcgctttta 3720  
 atcctctacc tatccaatat gaaacacctg tacatcatta tgccttctta gccgtagccg 3780  
 ggacggcctg tgcgctgccc ttgacttgta aggccaggcc cgtaataatc tcagcaataa 3840  
 ctgtaaccgc cgtcgcgcat acactgttcc aaacctggac gctcaccgaa ccttgcgag 3900  
 cgcgagggaa ggctagcacc cactccacag ggtaaggaag ccagccgccg gggagttcaa 3960

agacaggcgt tttcgagtat cggaattgga tgaagatctt gagaccggtc gtgctgagcc 4020  
 agcgggcgat tttgactaac cagtcaaagg aacctttctg cgaggagagc ttctgggtcta 4080  
 taaacgaatg aaagaataat tagtccctcc ttaccacac acagaataga gaactaaatg 4140  
 agagtggaag cataactcaa gctcatatt cactcaacgc cttatcatgt cggcgccgca 4200  
 gcttcgcca ctttgcaaat tcatcttgcg agcttgatt gttcatgtcc cgcttgagct 4260  
 ggacgacttc gcgcttcagc ttggtttgtt cctgggaggc ttggtacagc gacgtcggga 4320  
 gcttaaggta gaggagccat agctaaggaa agcgtagct gcggtctcag aggggtagag 4380  
 aaggaatttg ccataccaag ttgtcaattg tcgccgcacc gatcgtgttc acgagaaaaa 4440  
 tggcgatatg gagaatgaat atcgccaaa taaggagat catgattgag aagcccaagt 4500  
 ctcttgaagt tcggatctta ctgtttgttt gtggaggcac gaagacgaag cgaagcgagg 4560  
 ggagcaggag aaccagccgt ggcttcaaag gacaagcggc ttcaagaaag agtacacgat 4620  
 aacgatctgc taggtattgg acgtgtcac aactcgcagc agaattgctg gcagaggtat 4680  
 tgtgagtagc gcaaatacag ttgtcacgtt gccagaactg atcgatctt cggcgggcgg 4740  
 ctttttttga tctccggcgc gaacagcggg gaacaaacca cggcaaacag ccatgcttct 4800  
 gtctcaatga cagcccaatg tccgcaacaa cccaacgctt ttcaagagct cttccggatt 4860  
 tttgcgaaca gagatggcgc agttcttgaa ttcgagattc tcccgcggc ctttggcccg 4920  
 atactcgagg atggctgctc gattggaatt acgaagaagt gcctcgtgca agcgtttgtt 4980  
 gttgcacgga gaatctttct aaattctttg atggcgaagt cgagctcaca atataccgat 5040  
 gaagctgctt cgacaccagt attggagggt gaaggcgggg aagcgatca gaggttaca 5100  
 atcgcatcgg agatcatcct cctcttcgac tgcgaacact tgacggcatg caactggagg 5160  
 aagcgaaggt taagcgcgct gttcacctca gacctggaga cgctcatcca tgcattggat 5220  
 accgaactct cctcatgac gacgtacctt tgctctccgc tccatcggca caccaagtcg 5280  
 ccaactctgt ggcagcatcg tcaatgggct caaacgcac ttgtccggct ccgcaagccc 5340  
 gactttaagg gcgtcgagga tctttttcaa gctgaattat cagtggctct gcgagccggc 5400  
 gagctacatc ccaggaaact ctacgccttt acgtacttgc gacagatcca ccgtatactg 5460  
 gctgagtctg ggggcttgaa aagcgaggag tggcgggtac aatttgggca gagcatcatc 5520  
 cgacctacac tggattggtg ccttgtccat ccagctgata tatctgggtt gatgtttctg 5580

ctttatctgc tagatggtgt gccaatatcg gcgcttcggc tcgatactgt gggcaaggtc 5640  
 gccagttcg cgctagatat cggtgggag ggcgagagta tttggacgtt cgttgaactg 5700  
 gccactcgca agttcaacct actcgaaccg ctcgggccat caccgccata tccatgggct 5760  
 gtctcgca ccgcctcggt agaggcaatg catgttgaaa ttaaagcgcg tatatcatgg 5820  
 cggacatggc ttgagagagc acgaatttac tgggccgcgg agaaaacccc aacaatatag 5880  
 aaccatcctc ataagaagaa accatcgact cctcttcgtg cccgcgtttc tccctctata 5940  
 agggataaac gtttagatgcc cagcccaatt acccattatc taaatatagt gaaagacccg 6000  
 ctaaaattaa accaaacgct tcagatatc attcaaacgc ctcgctaaga aatcaagcgt 6060  
 actatcgta aaagtgatat tccatgcccc agtgcggaaa acccaattat tcccagctgt 6120  
 tgtatacga 6129

<210> 5014  
 <211> 760  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5014

acttggtacg attctcatgc ttgcttattc ctttctatag ggggaccgca gcccatagac 60  
 ctgctctacg tgagctcaaa tgccaccgc ctacctgcct actggtaacc cgcgtcgac 120  
 agcaaactgg cagactgcag tgcaaatatc tagcggcatc cgcggtcgct gcaagccttt 180  
 gaagcaccta cgaggtaagg agccaatgcg aatagcgtg aagctgtgcg tcccatgtcc 240  
 actacacctt taccttaaac aaggaattat ttggctcaca ccccaaatac ctgctgggtg 300  
 ggcgatagag acgatgagaa gcgatttttc gcagaagtac caagaactgt agagggagaa 360  
 gaccttgtaa gaaaggaatg ctcgagtaag ctgcgtagtg cgggtgttga cggaaatttt 420  
 cgtatttata ctgggtttga gctgtaacag ctgccttaag atgttcgcgg cgctgtcgat 480  
 tggtccatg tgccgtctcg tgatgtcgaa tactatatcg ataatcccag ccgatgtaat 540  
 gccagttga tcagcgactc gctataaagg cgaagagttt ataaagacca agaggtcagg 600  
 acgatggaat acccatgacc attgctgctt atttgatca tcccctatcc tattgctagg 660  
 ccttgcttac aaaggctaag aaagctagtt tcgttgattg caaggccaca gaccacgtag 720  
 agtgatcggg tatcgatagc ctactccgca tatctggcgg 760

<210> 5015  
 <211> 2872  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 5015

```

aggaccatga aggggtctacc gatgctgttt ttaacagtca actttaccta tttgaggccg   60
tcggtattat ctgctcgatt cccaccatac ccgcggacaa gcaagttctc tacgcgcaat  120
ccgtgctgtc tcctgtgttt gtggatatgg aaaagaacct gggctcggcc aaatcgggag  180
acgcgcgacc gtgcttcaga tacaccacga catcatggcg cttggtacac tcgcaagagg  240
cttctcagac tggcagcccg gcactagctc ccctgccacg cagctcccag cgcccagagt  300
ctcagaggcg ttcagccagg tgtcggaagc cacccttgtc gctttggagt cccttaaggc  360
ttcatttgac attcggacag cgtctcgatt tgcgttctcg cgactgatcg gggttcttgg  420
gtcccgaatc ctccccacgc ttccccgatg gattgatggc ctgctgacct aaacatcgtc  480
gcgggacgag atggcgctgt tcctgcgcct gctcgaccag gttattttcg gcttcaaggg  540
cgaaatctac aatatccttg atgcgctgtt gatgccattc ctgcaacggg tgtttagcgg  600
aatcgcggac ccaacctcgg gtactgatga cgagatccac ctggcggagt tgaagcggga  660
gtatctcaat tttttgctcg ccgttctgaa caatgatctg ggtgctgtca tcatcagcga  720
acgtaagttt tcagctttga ttgttccttc tcccattttt taccctaact ggtttgatag  780
gcaaccaacc catgttcgac acggtcatta caacaataga gcactttgcc aaagacgccg  840
aggatttcac gaccgccaag atggcgttta gcgtgctgtc taggatgggc agcgtgggg  900
tggtccggac atcgcaccag cagcctcaaa cgccccctcc acttcgcaag tcgcgcttcc  960
aggtttcggc cagttcatga ttaccgcgtt ctctcctcta tgctgggcgc tccccgccac 1020
cccgtctttc aacgcaaagg acgcgcaagc aaaacagggt ctcgctgaag caggaggtct 1080
gcagcggacc atctacagca agatggggat ggagtatata gaatacctgc gggaccgcga 1140
gctacctggc atgggcatgg gagcagacct ggtggaagag tacgtgggga cactgagccg 1200
gctggacctg aggggggttc ggcagttctt tccggtatgt ttgcattaag cccgttggtg 1260
aagagacccg tcgctaacat cacacgtacc acctgcagca attcatccaa cgtttgagcg 1320
catgagcatt cccgtcatct atacacaacc gttccaccta acatttcctc gatttacttc 1380
  
```

ccatttcctt tggtttatatt ccccgcttcc attctattag atatccctc ggtttggttt 1440  
gatgactgat gtttcccttt tctctctctc ccaatctctc tgtcggcggc ccacctatcg 1500  
tactgattct cgtacctctg acgcacggac tgccatgac gatgaatact tgggactcgg 1560  
ataaaaggta tatagtttgg gaggcatttg catgtattgg cgttgatgtg cagagtattt 1620  
ctcagcgtga gcacgagaaa gcagataagt agggaaaagaa gaataggaat gtatgtagta 1680  
agtgcgctag aagtttgga ctcttggaac attatgaaac ccgtgatagc agttggcagt 1740  
gtggctgctg tggctgccgt ggtagccacc tagtatgaac ttgctgggat ccgtgcttgg 1800  
cggtgcttta ttgagtggag accatagtgg acctagtggg ggtcgtgtc agcgtccata 1860  
gcgggtgaga gattcaagct actttaagtt tgcgaaccac catgatcaag gaacactcta 1920  
ggcgaacctg aaaccgcgtc tctgtccag tctcttgcta cctatcagct tatccggagt 1980  
aattgctgtc ttaagccaa acccgccctc acaaggctac agccaatcgc ctggcttcgt 2040  
actcggggag gctgagcttg ggtgttgacg taatgacgag gatccggaca agccggatgc 2100  
tgatgcctga ccgaagattt acaaggctga gggtaaata gcaactggc atatgaccag 2160  
gaagaaaagt gcgctggaga tcggggaggtg atagtataag atactgctaa caatggatga 2220  
ttctacgtac aactagatag agcgggcaaa gcatagctga gggagcaaac ggatggggac 2280  
gagggcaggg gcagaaggca gcacaggac tcccatgcaa catgatgacg gcagctgcgc 2340  
ccactggcct ttacctatgc ttattttcct tcacgttgac tattactata tttttcggc 2400  
tgtccgctgg tgcccgtgct cgtttctgac tgtagtccac gtccccgcgt cctcttcctt 2460  
cccattccag caccgtggac gaccatccca tatttcctct atcctttcca cgaatattcc 2520  
tagaccacaa gaatgggctc ctttaagaat ttcacgagc ccggcgggtca gtacgatcct 2580  
cttcccatcg ttctgtctt acatagatgt tgggatgatg ttgattgatg tggatgtgaa 2640  
tgtcgatgat gttggctccg gtgctgattc tgctgacact gtcttcctac cagccatcgc 2700  
tgctgttttc acggccacca ccctatataa tcgcccgcgc cgtcaaccgt cgagcccctc 2760  
agatcccccc tccgcgaat cggccttgct tccggaccgc gttgttgca agactcctga 2820  
tgagaatggc tactatcgct cagtcgagaa cagtcgaacc gtccagtcac gg 2872

<210> 5016  
<211> 2844

<212> DNA  
 <213> Aspergillus nidulans  
 <400> 5016

```

acgccgcggc acttcgcgca gggccaaacg ttaaaaaaaaa aaacaaaaca aaaaaaaaaa 60
tcaaaacaaa actccggttg gaatgattcc agttctcact gtaaggcaat aatacatata 120
tctacaatat ctaaatcgta ttaccgtcca agaataatgt tgtacaattc ctaccatgag 180
cgaaatccta gtcatcacct gcccaagcgg caaacaatgc tcccgcctca tccctcttct 240
ttacaaaaag agtcgattta ccttacgact ggcagcgcac tctgagtctt ctgcccgcaa 300
gctcagggaa tgctaccccc aggccgagat tgtccgaaca gatttgcagt ctcttgccga 360
ctgccgcaaa cttctgcaag gtgcaaccgc catcaacgcc gttctacca gtctgcattc 420
ccatgaaaaa gaaatcgggt tcaatctggt agatgctgct gtggccgagt ctaggcgcga 480
gggtaatgtt ttcaaacatt tcgtgctctc gagtgtcctc ggtacacagc atagaaccct 540
cctgcagcat gatctgaaga gctacgtcga ggagaggctc tttttgagtc ccttagactg 600
ctggacgatt ctcaagccaa caaatgtgcg taaagttgaa ggggcatgcc catctgagcc 660
cacaatccac tgacagagtt ggacagttca tgaacgccta ccccgtaggt gccctcgcag 720
agcaagagca cccggtcctg gaaaagtggg ggaaaccaga acacgagaac agcgtcattg 780
ctctggaaga cttggccgag gcatcgacaa aagtgctaga cgaaagggag cgccactacc 840
ttgccgagta tccgctctgc tctacgatgc ctatatccga ggtagaaatc gttggcatca 900
tagagagacg catcggaag aagatcgagc ttaagacgcc ctcgttcgag actggcgtgg 960
ccaagctgac caaggtcttg tatggtgggg acgaaaaggg cgccggcgag cttgggctcg 1020
gttctgcaag cgagggagac cttcgcggtg atcttgttcg tgatacccta acgcatctga 1080
ttctgtttta taatcaccgc gggcttaagg ggagtccgaa cgtgctcagg tggctgctcg 1140
gacgagaacc gacgtctgtc gagcagtggg ttgactctgt tgctccgaag tgagtcagct 1200
gtttcctgta atcacgacag cctatattca tagataaagt gtgcaactca gaagaagaat 1260
caaaatcctt tcgttatccc ctgtgcatca atctaaagga tcttctacat gcctctgatg 1320
gccgtagata aacattactg caaatgccaa aatttatctg cctctacacc ctccaatatg 1380
tcatatcaga gatcaaaaca gtagtatatg tatttgttac atacatataa aacatctaag 1440
ttacgttgac agtgacagag aagggttaatt acttatccag ctagcacaag tatataccaa 1500

```

ccgggtggtc aggaagacca ggaaagttgc tgccaggaca aattctatth tggagacgat 1560  
 cttgtaacat tcagaacaga gtaagagaac cacaagggag ttaagagcgg atgaatgtga 1620  
 tatgtggctt agtagggaaa tctcgctcc tgcattgaga ttaatcaacg ggtgagaaaa 1680  
 aatgatacc atctccaggg gtaaagacgc aattcccagg aaacctagag cagatcccac 1740  
 gggtaaaaaa aactgataag gagaataagc aacatcacag agcctcccat aagccggaca 1800  
 atcctttctg acatggcccc caaggtatca gcactatctt cctgaaggat ttcaggcccc 1860  
 cgcattggtg attctttagg gagaaacctt ttgtgaaata gcccctcgtg aatcattccc 1920  
 gtgctgattg taaataagtt tttctacttg ggttgattgg agaaatcagt agacgatcag 1980  
 ttgggaactc actttccaac ggtagctgc tatccaacca ttgagacca agggcaatgt 2040  
 gggatatctg acccattctg ccacctatgt agggaaacgac tcgttgagg acatacagct 2100  
 tactccagcg gaattgtata aatatcgaat gtgccggggg agagatagca gtattggtat 2160  
 ttagagccca gttacacgca acccagatct gccactatcg acctctcagt cagacttcaa 2220  
 atatggcttc atcgtctca tctactcagg cagagaacct tatactcata ttcggccccg 2280  
 aagaccgaa cctcaacgac gcatacctgc aatctctccg cacgaatctc ctgcactcgc 2340  
 cttttctgca atggatcgtg cacacgctaa tacagttacc acaagaatgg caaagaattg 2400  
 cacctacaca cactgaacta gggtcatttc aaggccagaa gtaccttcaa ttattaagcg 2460  
 agtggatgag gaaggggaca ctaccgggaa acatctttcc actgccgaac atactagtga 2520  
 cgccgttggg ggtgacaacg cacttggtc agtacacgaa gctgctagag cagttaaacc 2580  
 ctgccattgc taaaaatgat atgctgtcgg ggatagtcaa acatgacata cagacagtag 2640  
 gtctttgcac aggactcttg agctctgccg ccgtggcaag ctcagccacg ctggcggaac 2700  
 tggaaaagca tggatgcagct gcgattcgga tggccatggc tatcggggcg ctggtggatg 2760  
 caggggacac agaggtcgag gacggggaca agtggcagtc tctagcgggt ggctggacca 2820  
 ccagaacgg agacgctgaa ctgc 2844

<210> 5017  
 <211> 4622  
 <212> DNA  
 <213> Aspergillus nidulans  
 <223> unsure at all n locations

<400> 5017

aagacttccg agaggcatat attcgccgct ttggagacca atggatgtat taatcagcga 60  
tgctaggctc agcttattgt gtactattta gtctttgaac tgtgcatttt ttaaatttat 120  
tgctgataat gcatgtcata atccgctata cagttcccca aatcaacgcc attcccagtt 180  
aagataatac acccttaaga aaatcaagac agtcaaccct cctaagcttc attaacatga 240  
attcaaacgc atcaagcctt ggccgctcgt aaatctgtct caagggcaga ttcaacagct 300  
tcagccttct cgcaagtaca ggaagctaca aaaagtcagc atttgccatc agatttagga 360  
acagtaggct ttaccttccg gtcgcttccc gcaaggacaa gtctgccccat ctacagggtt 420  
gttttcactc gctgctcgt cacaagtaca ctggccggcc ggacgagccc ctgcacgcac 480  
ttattagaat acatccaagc caagctagat tgaatagaga taaggcagaa catacggcac 540  
gagcatctcg cccoctgaat cgtgttctcg ctagaagcct tgttgcaggt gcagtgcaga 600  
gcagactctt ttccacatga gcatcttgcc tgcgcggcgc acacgcaacc gccgctggga 660  
tttgtcttgc agcaggttga ggtggggtga accatattga atgttgtttg aatggtagag 720  
atgaggttga ggaatttgac caggctggtg tcgttgatg gcgtatacca agcttgatg 780  
ggatgacgtc agatgttcga actgggctag gttcctgcaa acgctggcag atagcaaaca 840  
aaaccggagt aacgaagatg agatagtggg agtaaaagat agatagggtc tgatgatgag 900  
aaatagaggt aaagagagag tcaaagtga aatattatac gctcaagctg ctccctgcctg 960  
tcaagtcagc cgttgatatg cttgggaatc tgccggcgct ggttggctgt ctccaacgct 1020  
gccttccctg tactgagctg aagattggtg attgctctca gcgcattggg cgtttacagt 1080  
tttcaaggct aagtgatagg taatcgctt tccgttggtg gtgctttgat tatgctattg 1140  
aagtatacct cagccctaatt tgcctatctg ctactccgta ctacggagca ctacatggag 1200  
agtatgaatg atatacagta ggcgtagaag acagatatag actaggataa ggtaagacac 1260  
aaaaataaca tttaacatta tacctcagtt aaacttgatt gtgagtatgt cttttgaaca 1320  
gccacgcata aacaatgcag caagcagcaa gcagaaagct gaccaacgcc aatgggtccca 1380  
actccgagta caacaaaaca aagatttttc cgctgcaaa caaaaagttt tcaataaaac 1440  
acaagagaaa gaaagaaact attatcaaat cggcaccaag taggtgtcca accacattca 1500  
ccattcaatc gaacttggcc atggtccgcg ttactaggct aggtagagat gtaatcgctc 1560

aagaagtcgc gttgagtatt gcttttagaga aatggtgttt cgcatactat aagtagttgg 1620  
catagtcgta tccctgactg tatttgcccc tcaggggatc catgacctgc ggagacgtcg 1680  
tcatectgtc atccgcgggg ctgctaacgg caacgtgccc ctgttcggaa gagaaagatg 1740  
ccgggaggct caggctagag gcattggcct ggggtgaatgg aatcccagtg cccatgctgt 1800  
aagggtggtg ttcgtaggga taggggcat agtcgggtgt ttccgaaacc ggtaggtgct 1860  
gtaagggtggg cataacttcgc ccgggggtgat gcatgtgcga gttcatttca attccgccgt 1920  
atgattttgg agcaggcatc gaaagcggag gctggtaatt gtgtatttgg tctagtagag 1980  
aaaggattag cattgccaat atctcaaaca tttagagact tactagtgtt atccattcca 2040  
tatgtcagtt gtgcttcttg ctgaccactc ggcgacacag aaccctccaa tggacgatgc 2100  
tgaccatagc caaccatcat gccgttcgct ggccggttca tcacataatc cattggccgt 2160  
cggtatgaaa tccctgggtg gccacccgca tcccaggcc tcgagaaacg accgggggtat 2220  
tgaagacttg tattgaaaga cggtcagag aaactactcg atcgcggaag gggaaagttg 2280  
gctcggctgc ttctcagatc tggaaccgtt gctgccgtc ctcggttctg gtagttctcg 2340  
aagcccctgt cggacgaggt cgggtggtag ccgggaccgc ttgtagaggc tgagctcaat 2400  
ggagagataa cgtaatcgtc gtcgttcagg cgcggtaaac cttcagtaag aagaccctgg 2460  
gacactttag tctgagtata aagagcaagg cggagtgact ctaccgatgc ttccgaagga 2520  
cctttactgc caaaaggggt acgcaagact tgagtcgtat caaagtcac tcgggagcgt 2580  
cgtgacttca acatccgttc ccgatcgttg ctggtgagcc gcttgagttt tgcccgtcta 2640  
ctagcgtgtc agtcggaaat aggacgcttt tgtaacata tatatatacc tattctgaaa 2700  
ccagacctgg acctgacgtg ggggtgagccc tgggatctcc cttgacagtc tttctctgtg 2760  
cgcagcatcc ggatgcgct gtcgagtga ttcgctcatc aaaaagcgcg tttgattatg 2820  
cgtgagcctt aaggggtcag caattgccca aaggatagtc tcagaccaca tacctgaacc 2880  
gcttcatttt cttcttgtcc agcttaacat cctgcgatga cttcttttcg tcggcgattg 2940  
atccgtcatc atcagatgac cctgcgttgg cctcgccgtg gtccctttca tctcatgga 3000  
cctcttccga ctttaacttg gatgacaact catcatttgt ctgagactcg ctggaacctt 3060  
gaatatcggc attctgtctc tcagggttcg ccgtcaatga tgagtcgctg tgtgcgtttg 3120  
tatttcggtt ttccagtccc ttcgagagta cgtctacccc tgagtactgc actgagttgg 3180

aagatcctgc agccggctgt gtcgaaaagg cattctcagc cttaaattgca gccggctgca 3240  
tttccgtagg gggagctttg tctggctcgc ctactgtttt cccaagtccg gatagagctg 3300  
ataagtccgc tctcgatttc gtcaaggctg gctcgctatt ccaggagacg gaagcccagg 3360  
aactcgtgat tgaagatggg tgagcagcgg ctggtgatgg tatcgtcgac acccaggcgc 3420  
aagggccact gactgacatg gtcgtgatac ccttaccgcg ctagtccatg caagttttgt 3480  
gagtgactct ttccagcgta aatacagtca gaatgtgatg ttgggattca acgctctaaa 3540  
aagagcagga cttgatgacg ggagaaaagga tcacggatga ccctggttca ggtgggtctt 3600  
gaagagtcgt caggaggttt ttgggagatc caggattctc gttataaccg ttgttggtccc 3660  
aggggtagcg atagggaagg aagtaaattg aaagcccttg atcgtgggta tcaggaagtc 3720  
ctcaagctgt cattggactt agtagctgac ggacaagaaa tagtctaacc gcctggacgt 3780  
ttcttataaa gtcaaataaa aggggaatct tagtcgtggc tgatcaccac aagtcagcgg 3840  
taaagagatg aggccgattc cacagttggg tcctagtgtg gccgaacact ctagcgtcct 3900  
tgctcctggg gagtaaagaa gaggagcga gagatcaaac agtgctttag ccaagcgggt 3960  
cggaataaag agatcaagga ttcaaggtac ggagattcga aatcaggacc aggaataaccg 4020  
gggcgcttag gtctaagact gtgcctcctt ccgagagtat tgatccaccg gatctgtcac 4080  
tccagcccac tactgagggg gaggggagtg ccaggtgact gaggggtggc aaggcaagga 4140  
cgggtacctc cggttgacca caggctgact tgtctggaga cgaataacga ccaggaccta 4200  
atgcaggagg caatcccagg aaatccggca actccagcag caaggttcgc cggtacaaaa 4260  
gatatcgac gccgagctac gggaatgagc atttctccaa gagtatcaca aagtgtccgc 4320  
agaactcacc aggctaactg tgacaaaggg cagtaagaga aagggtgggt aaatggggaa 4380  
tttagctcgg attgtaggca attctttctg ttgtagagta aggggtttcg ggtggtgctc 4440  
tattcagcgg agctactact cagagcaaaa cttgacaata ataacggcga tataagggtt 4500  
cgtgcaaggg tgttatgata gaaagcngtt ggcgctactg gagatcgagc aaacgtgtcc 4560  
cgataccaat gacgaacatc tctaggatac ggacagaaga tacaattaga tgaaatctcg 4620  
cg 4622

<210> 5018  
<211> 2648  
<212> DNA

<213> Aspergillus nidulans

<400> 5018

caagggcact atgacactaa acccattcca caccgaccgc caggtgctga gccgagtatc 60  
ggctgctggc ttgctcactg ttctcgtgtc gttgatcgat gcgaacagtt catccttgct 120  
gagcaccatt acctcctcta ctctctcatc acagccatgt acccgcgctt ccttgtcacg 180  
ctcgacgaag acctccagcc gcttccggtc aacgtccgcg tcggacaggc tgttgatgtt 240  
gttggacagg ctggaaggcc aaagacgatc actggttggc agacacagag caccctgtg 300  
ctgctttcct acggtgagcg agcagagctg gaggatgaga aatatattcc tctcagtagc 360  
acattggagg gtttggttat ctgctgtaag gtaagtcac gcagcttctc tgtatttgtt 420  
acgaacattt ctaacattct cacagaacct taactgggag gaagaaagct ccgcctgagc 480  
aacagtgtcc tgaatggtat ctagtgagat agaccaaacg caatatctgg cgttcctata 540  
cagcttaggc cttaatgaat tcacaaaagt ccaaagcata gtagacaact gattccttga 600  
cttagcatgt ctgccgttcc agcgtccttg tacatgatac attgattggc aattcccagc 660  
tgtgcctggc cggagataag atcatccttt tagggtaagg gcacgtgcca taagaaatcc 720  
caattttccg tagcatcata gccgcgacaa caacttgcg tcaaagacac gccatttagc 780  
ccagatatcc atcttaatta actaggagaa cctggaaaaa tgaagcttga cccgaaggcg 840  
attcgctatc ttacctcgga agatttccgt gtgctcgag cagtatgtct tcacatttcg 900  
tttccccgca ttatctcagc gggggatatt tgcacaatct agcaactgac ggcaacgttt 960  
ctcaggtcga acaaggtagc aagaaccatg aagttgtacc gactcccttg atcgcacaga 1020  
tctctggtct acgaggcggc agcggcgta accgtgccat ctggaatttg gcaaagacca 1080  
acctcatcgc gaaggtgaag aacgccaagt gtacgtatta cctgccgtat ttctgcattg 1140  
tccttctcac atacatgttt ctgggctaga tgatggttac cgacttacct atggcggact 1200  
cgattacctg gccctcaatg cccatcagaa acaaaagtgc atttactccg tcggtaacca 1260  
gatcggggtc ggaaaggaat cagacattat agtcgttgcg aaccacgaag ggacacaacg 1320  
gattctgaag atccatcgac tcggtcgtat ctggttccga actgtaaaga ccaaccgaga 1380  
ctacctgagg aaccgaagca caggatcatg gatgtatatg tcgcgctgg ccgcgatcaa 1440  
ggaattcgcc ttcataaaag cgctacggga gaacggcttc tcggtaccag agccgatcgc 1500

gcagaacaga cacacgattg taatgagttt gatcgatgcc tttccactcc gacagatttc 1560  
gaaggtccca aaaccagccc tcctttacgc tgagttaatg gatacaatca tgcgattggc 1620  
ccgctatggc ctgattcatg gtgacttcaa cgagtttaac attctcatca aggaggaagt 1680  
gaatccggaa gcaaagggga aaggacgtga aggagaagat gacgacgaaa acctcaaatt 1740  
gaccccgatg atcattgatt tcccacaaat ggtatctgtc gaccatccaa acgccgaaat 1800  
gtactttgac cgcgacgtga actgtatcaa gcgctacttt cagcgaaaat tccacttcgt 1860  
cagtgatgta ccgggacctt tcttcgctga tgccaagaag cagttaaaga aaaatccagg 1920  
caaacggctc gatgttgagg ttgaggcttc aggtttctca agaaaaatgg cacgcgagct 1980  
tgagaagtat atgaaggagg ttggcgttga tggggacaat ggggaagctg ataaggaagg 2040  
tgccgagagt gacaatgaag atggttcagg ctcagaagat gacactgcag gtcagagcga 2100  
gacagataca aaagaggaaa actcgaatcg ctcacttgaa gagagttctc agaaactcga 2160  
acagttgcat gtgtcgtgaa tacgccagat gcctacgctg attaataag agttgatggg 2220  
ttgagggcta gcattacgtg attcaaacct aatgactgtc atgaataaga aatatagact 2280  
tcttttccgt cattatggaa caagaataag ttatacttgt gaatccatt gtaagattgt 2340  
ataagaatga caaactacgg agtactctgg agtatagacc ggctccggca cgcgaagcga 2400  
caaccacgca gttctaattc gcaaaagtgc cgcaacttcg aaaagaccgc caacttgctc 2460  
catcttaaca gagaaccaac aaacccccat caaccttctc tcaatactca aaacatcaat 2520  
ccggaccgag tcaactaaaat ggtcgcgaag tggtcctaat tcccaagaa gcccgccgac 2580  
tgggttggcc ccagcgcacc actttcccag cgcaagacgg tatatctgta cgtcctctta 2640  
gacccaat 2648

<210> 5019  
<211> 4602  
<212> DNA  
<213> Aspergillus nidulans

<400> 5019

ttcatgaaca aaggtctctg gttcaagaac tgaaagaaga tttcgctcac aatgggtcaat 60  
ctgctggcca tcggagttgc ttgtgtgctc tgtggtatgg gcctctgggt gtctggcaag 120  
gcgttgcatg ataaccgaag ctcagccagc ttttcttgcy cgaataatgc ttagccgatc 180

ctgttggtat attccaaatt tagggatatgg-cggtttgttt gggagggtctg tataatatgc 240  
 atactcggta catatttggg attgttcagc ttcacataga ctccggcggtc ggcttcgtct 300  
 cttccacatt ttcttctctt gcacgggtgg tgactttttg agacttcttt ttctcttctt 360  
 tatgggtctgg tcaaagtctg ttgttcaaga ttactgcct tcgccgtgac attgtgtata 420  
 tacctttttt tcttctctac tgcattgctt cgcatagcct tttatcattt gccttctcaa 480  
 cgaaaagctt gatgctttgt attattgact tgaatgacct cataattgat ataagagtaa 540  
 gctggatatca gtaattggat acagaattgt caatgttggga ctaaaatgag aaccaccact 600  
 aaacataaga gcgccagctt aggttcaagc ttgaatgtag ttataagatc tcggagttat 660  
 ccggaactcg ccttatccct cttcattctc ctctcttccc tctgacagtc cttgattgcc 720  
 tcaggcgta aaatatcccc aggaagctca aagtcctct ctccaagctc cggaatcaga 780  
 tgtccgaatg caagcctcgt tcgccccttg cggtttcccg acatagcctg tgcgcggaga 840  
 tgcggtttcg cgaagaacga ggtgaatggt ttgggcagac caggaagagg tggaggagca 900  
 gattgcgcaa gttcttgctg ctctaatttc gactttggtt gtttcccggc tgttgagag 960  
 cgggcttccct gaaggagttg acgggctgct agggcgctca cgtcatcgga tgttggttca 1020  
 gcggtggctt cctcgtcgtc gtcctttctg tcgttatctt ttgcattgcc gtaggatggt 1080  
 tcggcggcgt cggagtggaa cgacgcagac ttgtaatctt tatcaagctt acggcgcttt 1140  
 tcttcttccct tccagatctt gaacttttgg agtaaggctg agatttctgc gatgaagtag 1200  
 tcggttttcg gctcgtaaag tttcttgtct tgctctgaaa gactgcggcc tgtgatgcc 1260  
 atcacacgca gccagtcgtg accttgagc tcgtcgagga gtcggtctag ttgttggtga 1320  
 tcatgccgtg cgcggtcacg ctcgatgttc ggagttgctt ctctgccgtt cgtgtcggca 1380  
 tgagctttga gtagaattcg tcgtaagggg tcgtatcct cagcctctcc agcttcaata 1440  
 tcaggccttg actcatttat gagctgggta tcaggcaagg ttataacgtc gcacttgat 1500  
 agattgacca gggggtttcc gaagggcgcg tccgcatcag aactcgaagg ggcggaggat 1560  
 aaatcgacag gttcggcaag atcatctatt agctttataa ctgtattctc tgacagcaat 1620  
 tctacatttg ccattagttc tagtcattcc agcgcaccga atgaggcgac gatgtacgca 1680  
 cctgtttttg gaggtccaa actcattatc tgatcataat ttggaaaata gagcgccaat 1740  
 tcgctcttcg cccttgaacc cccatcatgg gagcgaaggc tccgccgtt ctctggcaca 1800

gcgcgatcgg ccgttttcgga aggtactgtc aacgattggg gagctgattc gtctgaaggt 1860  
 ggcgggacgg tcgagccccg agccggacgg gtattctttg actttgaact atcctttaca 1920  
 gcttggtcag acgcggggtt taggtactgc gtgagacgac gctggcgata cgccacggag 1980  
 gtgggcgtgg gcgtactagt agtgattgta gatggtttca gagccggagc aggcgagatt 2040  
 gtatcaaggg gatccggggg cgggcggcca ccattcagat atagtgccgc tgaactcgaa 2100  
 ttaggagtgt ggtgttgacg gaggtttcgg gcgtgaggcg tgctgctacc ggatggcgga 2160  
 gaggaagtgg tgtgagcgga atgcgcgagg agcggtcgcg gtcggcgag ctttgtggag 2220  
 gaggtggagg gcgagctgtc gattgtggta tcgaggagat ctggagagct ctttcgacga 2280  
 cgcgagggga aaaggttcag acggggtcgc ttggggggag gcggttgaac gcccgcggaa 2340  
 tcatcgttcg tggcgttggg gtctttgcgc agggcgcgga gagatgacct cgatcgcgcg 2400  
 ggcgatgatg ctgtggagggt cattggatct gtaggtaatg ggggaaagcg actggggatt 2460  
 tcttcgacgc gctctgggag catcaaagcc cgatgccggt gtgagatgac gcgtggaagg 2520  
 gggaattgga tacgagagga atggcaagaa tgaccggatc tgggtcaactc gaagctgtcg 2580  
 cggtttcagt cagcagtcga cacaattcaa acgactatat ttcacattct tcatgataat 2640  
 atatcatcca aaattctctt gttgggtctca gcaattacat atatatacac taccacgctg 2700  
 agcctcaaaa gatctacttc agatccttca aataccttat tcccgaactcc agcatccacc 2760  
 aagcagtcaa ttcgtgcacc caattcgga acccattctc tagagggagc ttattctttg 2820  
 tatccttgtc cctccacatg agcgtttcgt tgtgaaagac catgtcctcc cctttaactt 2880  
 caacactcac caccaaccgg cctgaaccc caaacaggaa ttcaaactct accttctcgg 2940  
 gcgcacgtag cctaacccta tacgcattac agaccagatc cccctcgta aagtcgagag 3000  
 ccactatgtg cgcgcgggtc aagctccgga tggtttccgg gtctgatgct gcgagtttga 3060  
 gaaggcgggc ttgtggcgaa gatgcgaaag aggacatatt tcggcggaga agcgcgatga 3120  
 ggagttggct tggttcgagg tctggtaggg agtggcgtgg cgctgagatg gaggcgtagt 3180  
 cataaagggt atagtactct gagctgaaga tatcgacga gatggaggag acattgcgcg 3240  
 gtgttgaagg agagagctgg ccgcgttctg aagaatgtct gacctgtgat gcgagatagc 3300  
 gtttctggtg tgaaaggat agggagacgg ctagtgagag gccactgatg gccgttgccg 3360  
 tgatgacgag ggcttttctc attgtagacg cttgagttg ctaggactga taagcacgtg 3420

tgaatgaagg tcaagaaggc tacaagatg atattgcttc gtgcttagaa ttttgtcctg 3480  
 ctctgaaagt cacgggccga atacgaactt ggcgttcggt ttcttggata gcattaccct 3540  
 caccaaaatc aggacacagt gagagaattc tatgtctctt tatagcaggc tatgtacctt 3600  
 tgagcgcggg ggtactatgt tcgagcgcgc tggtagctag tcttgaggat acccagctat 3660  
 gccagtcacg tcaacgtcaa acttattggc cgcaggagca cctacagctc ctctgctggt 3720  
 ctttataaag cttctactcc ttctgccgcc tcgagaagac gggatctgaa gctagcgggc 3780  
 acacgtccgc agagagaggg ccccaacagg gacggccatc atgaactcgg acacacatat 3840  
 tgggcacagt tacctgagct cagacagccg cggactctgt cttaccaata aatgccgcc 3900  
 ccgcatcaag aactgcacat gccagatcta tattaagta tagttcaccg taccgatgca 3960  
 gaaccctaga gtctcgtcca gccaatcttc gtgaaagaga aaccgcgcag actggaaccg 4020  
 agcacaggag tcaaaccgcc aagcagttct acattgtgtt ccttgacaga agtcgcaa 4080  
 ggggtgcggg gtggcgatgg gtttgggtcca gagtattcag tgaagcttct catgagggct 4140  
 ggaccagacc ccgttcggag acgcgaccga tagatgtgga gtagtgaagg acgtgacgtt 4200  
 ccgggggatg attgacaatc cgactaagct cagtgggtgcc gacgccgaat aggctgtagc 4260  
 ttatatgcat tacagcgtg catgggaggt gctgagcctg aaaaaccctg gtaaagtcag 4320  
 agaacccttg taaaagtcaa tatctcatta gttccattgt atttcattga ctcttgcag 4380  
 agggcagacc atagcatagt ggggagatat tcgtacttgt cccaccagt gtgccggagt 4440  
 ttgtccggct cgttctccag acagacttca gctttcacac aagatagacg cggccagaca 4500  
 acgatccata tccgattatg cttgatggga tggcaattgg ttgatcaggc aatgggtctg 4560  
 ttaaagcgtc tccggcaaac cgttccgggt gcctttggcg tc 4602

<210> 5020  
 <211> 3419  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5020

cggcgaccgc gcagaggatc tgcaatatct gcatggagca cggcgtgtca tcgcccttg 60  
 cacgtgtaca tggccgagga acccggctgg ttccggatca cgttcacggt cggcagggag 120  
 gcgttggagg aaggtcttaa aaggctgaag aaatcccttt tgcgtgtacg agcggagtcc 180



aggaatcggt aagctacaat gcgacgcggc atcctccttg atcttccttt cacgaactgg 1860  
 cgctaattcg tttcttcggt gacttcaggt ggcttcggcg gtgctccccg tggtcgtgga 1920  
 ggcggtcgtg gtgctcctcg cgggtggcgt ggtggccgcg gtggtcgcgg cgggtggccgt 1980  
 ggtggtgcta agggcggtgc taagggtggt gccaaagtca tcatcgtaag ttgatttcca 2040  
 ggctgttacg gtaacctagc atttgttgac caggatctct aggaacctca ccgtcacgcc 2100  
 ggtgtttttg ttgccgcggg tggttaaggaa gatttgctcg tcaccaagaa cttgactcct 2160  
 ggcgaggccg tctatggtga gaagcgcatt gcggttgagt ctctgcggg agaggatggt 2220  
 gccgttccaa gaccgagtac cgtgtctgga acccttcctg agtaagctgg ctgccggtat 2280  
 tctttgtggt gtgggatgaa atctacatgc ccccttggtt tcaagggtgct ctaccttggt 2340  
 tccgccagcg gtacatccgt cagtcacgtc gctgatatcg ttggaccgac cggaaacgtc 2400  
 tacgctgtcg aattctccca ccgttctggc cgtgacctga tcggcatggc tactcaccgc 2460  
 accaatgtca tccccattgt tgaggacgcc cgtcacctc tgcgctaccg tatgctcgtc 2520  
 cccatggtcg acgttatctt cgcgcagctt gccagcctg accaggccccg tattgtcggc 2580  
 ctgaacgcc acatgttctt caagtctggc ggtggtgtca tcatctccgt caaggccagc 2640  
 tgtatcgaca gcacagccaa gcctgaggtt gtgttcgccc gcgaggtcca gaagatgaga 2700  
 gatgagaaga tcaagcccaa ggagcagctg actttggagc ccttcgagcg agaccactgt 2760  
 atcgtctccg gtatctacaa tcgttcgtcg taaaagccaa aagcagggtc ctttataacg 2820  
 gtttttcttt ttctttctca tgtcttaatc ttgtgctctg tcctggcgctc gagtgtgcta 2880  
 cgatttttct tgatctgttt cgctttttgt tcaatgtcag gaatttagat gtgtttcttg 2940  
 acatgtaacg tgcattgagt taattcattt tctctcttca atttccaagg cctggtatcc 3000  
 gagtaatcat gtgccgtagt caatatctcg gacttacgcc ggtccccaac ctctatcacg 3060  
 ccagctcggg tgtcggactg ttgcccgacc aattcgcctt cggaattgtt gcgggacggt 3120  
 aactgacact ggctaatac agtcgatccc ctacgcagtg gaagaatacc tacgtagcca 3180  
 taggggtgca gagcggggat aaatcctggg gatgccccgc aggacaccta agtacttaag 3240  
 aagaccgtgg aaagactcaa tccagcacat tgcctctgcg attcgtctgt catcttctgt 3300  
 cacttttcat tgtatccttt acacgctaga aaatccaaga tgtctgtact tattaccggc 3360  
 gcagcggcta cgtcggccag gagctggcgt ctgcactcct tgccagctcc ccagatttg 3419

<210> 5021  
 <211> 10263  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5021

```

gtttatgtcc ggaagcattg aactcaatgc tagcaaatat atattttag aaggtcattt   60
taactatagg cttttccaat ataccacga cacttctatt ctgtgctcaa tatagcttag   120
acttattagc gagatagata tctaacggcg gcatggccga gtggtctaag gcggtagact   180
tgaatatttc acaagaaatc aggtatctac tctcttcgga ggcgtgtgtt cgaaccacac   240
tgctgtcgag tttttgcacc tcgaaaccaa gcgatttttt tttactcaat caaattttat   300
aactcataat acatacatac atatacacac cttcaaatt acaataaatt tatttgaagt   360
caatctggtt tattagtttt tttttttttt tttttttttt ttggccgatt cccagaacta   420
gaggcatcca tccactttac atgtgtaacg ggtgtaggca gtattatttt caactggctg   480
ttctgtataa acgagtatca caagcttaga gaaagaaaaa gaaacaagag atagaagcgc   540
agatatctcc ctctccctt tatcaacctt tctgatcat acgtcaggac ttctgacttc   600
ccggaccagt ataccgccg acctacatgc cgacggatct cttttcctaa gctacgaggc   660
tgcaattccg aggctgtata ctgatgttgc agaaacctta tctagaacta gggtgagggc   720
atggccgaca accaagctcc aggccatagc ctgtgacaac cagccgcatt gtagccgcca   780
cacctagctg ttcccttccc agttgttgtg gaatatgtc aaaggggaaa gggcaggagg   840
aaactgtatc gactacacca acgtagccta ctaaggatcg gatgccatat gacgattgtc   900
catctatctc gttgacgatt acgggttctt actcttctgt tttcccgcta tatatacatg   960
cagagggaga gaaccttcta taaccaggcg acgtccggtc attccaccgg aggtcaggtg  1020
gcctcatatt tccgtatcac cagtcaagca tgttattgag gactttgaca ggggtggaggt  1080
ctcccgccca aagttcaggt cagaaaccag ctggggttga cggctaaatg ccacctgacg  1140
cagtctgcct caggcaacaa ggcggtgaa gcttggccga gccctaaata ccgcatgtag  1200
attcaggtac ccattagaac ccgcgaaaag cccatttgta cccgtcctcg tataattttg  1260
gtgccaagat gcatgaaatt tgctttgtta ctccagtaaa atacagtatt tccctacagt  1320
atgtgtttac tgtcacgggg tcagcctagg atgagattct gccgctgctg accacacagt  1380

```

tggctgagtt ttctcgagcc ccggctctga tccaaaccag aaccttgagc tatgttttgt 1440  
 cttatctatg tacctgttta ggaacagatc tcacagggtt ggggggggtgt ttatacactt 1500  
 actgcagatt atcttttctt ggattatcct tgctttatgg ggtatcggta tgggatttta 1560  
 tttatcctac aaagctctcg gcttagtcga tgtaatcagc tttacgaggc ggcaccctag 1620  
 catggtgtgc gacctagtag tggtagtttt ataagatgtt ggaactcaaa tctgggagta 1680  
 tgaagagata accactaact atctaaccat ctaacctctt ccaaaaactga accccttcag 1740  
 agttcctaca ttctgcccc a gctgcaaacc agaattatga gaacccgaaa acgtcgcatt 1800  
 cgacacattg gcggccccct tatectcttc cggaagaaca atcttcgacg cccactgggt 1860  
 aagaaccga accaccttct tgaaatcctt gtcacctcgc ccgtcgtact ggctcagccg 1920  
 tagctggttg cgcgccaggc gctcaggagg aggagcatcg gggcctcggg ccaacgcctc 1980  
 atcaacgac ttcacatcct tgccgggtact gccagcttg gtgccggctc cggcatacaa 2040  
 gccttcacc tcgaactcag ctcttgcttg cttgagctcg gcaaaccgct ggggaatgcc 2100  
 gctgaggcgg tataaccggt ctttcaggtc cgattcgtcg gggatctccg cctgagcgac 2160  
 ttggagatac tttgtggctg ctgctaccga tcccggctgg aaatgggggg ttcttagtag 2220  
 taatataccg tggatgcagc caatgagctc tcttttgctg ggatgttcgg cggtcggac 2280  
 tagggcctag acatgagaat atcctacatt agtgggattc ccatgaacaa cgagaataac 2340  
 gtacattctt taaaacaacg ccaccgagac aatgtgcaac gaaaatgatt ggtctttcct 2400  
 cctgtttgct tcgtcaaccg gctgggtcat gaggcactgg tagagtagag cgagactggg 2460  
 aagaaaacct tctctttctc agttcgatgg tccatcagtt cgttgatcag gtcgctggaa 2520  
 atgtccgtga tttcgtcgtc ctctcaaaa aaaagaccga tagccgcttc atactcaaac 2580  
 gacaggatac atgcgtcgga gattttacct gggaggagct tttcaggcca gaagacatcc 2640  
 gaggcggatg tccacggtgc ttggtcgccg tgcaagccgt ggacaaacac aatactatgg 2700  
 ggtgatttgg gtaagaagtt gacttagaat ggatgggctg tgctagagaa agagacaggc 2760  
 gatcttactc aactttggcg ttggccggtt ctctaaccgc tctgatagac attctgaaga 2820  
 tggatgcagt gggaaggaag gctagctagg aatgtagcaa gcaagcaagc aagcgagcaa 2880  
 gcaattgata tcctttgcaa ctcttaaggg ttattgacta tttaatgcag acgggggacg 2940  
 acctacgacc aaggtagaag cgtggaaaac tcacagccag atgtaagatt taccttgaga 3000

tctgcttcct	acttgataa	tagtctacgg	gcaagcctag	tctgtatttt	ttcattacga	3060
aaattacaaa	gaggggctga	aacaccacgc	ctagtcaaac	ttctgcgctg	agcaattcac	3120
ctgcaagggtg	tgctggctga	agccttggcc	tttcccgaact	tctcatgcgc	aagtccatac	3180
agaacaatca	aaaggcaaga	agggcagtc	cgctattggg	ctaaataagc	tcgttaagat	3240
ccccctctgt	gtaagtggga	cgaggtgtcc	tttccataag	atctcgcta	cctaccggat	3300
tgcggtctggc	cagatgtgcg	gccgcctcat	gttacatcga	ttgccagtt	aaccgattat	3360
attggtatat	ccgatatgaa	gaggtcgggt	gctccgagaa	ctcttgagat	agacgggaat	3420
aactcactcc	ctgaccat	attctcaatg	ccctttcacc	ggcgcttga	gaagacggac	3480
catcaacagt	atggacgaga	actaccttcc	cccgattccc	aattcactaa	tctggacatt	3540
tacgctagag	ggccacgcta	gccgcacagc	ccgggctgag	cgcgctatac	cgggtcccgaa	3600
cagtgaccac	ggactcaggt	accctaagca	attacccgc	cctgagtgtt	gctgcctaac	3660
gcacacaccg	ttgttgagcc	tactctcaca	aaagagatat	cccatcatat	cttggaaactg	3720
tactactagg	aagttgagtt	tgccgtagtc	tcttagaatg	ggataataca	attgtgtgga	3780
gaatgctatt	gttctccgga	ctgggacggc	gtgggaacgc	ggtatttttc	actgttctga	3840
gaccaagtag	ggttgagta	aatgcggctg	agaacatgg	actaagagct	acggcttttg	3900
gctctcgatt	ggctggccag	tcagttgcgg	actcgacatc	cgcatcactc	agcccagctc	3960
tgcttccctg	tatagcagat	gaggcgctgg	actctgctgg	ctcattaaag	attggctttc	4020
ctggtccaag	tctaaacaac	atcattcaca	taccttcctc	actcaatccc	gctccagcat	4080
tcgtctttca	cgcttgctcc	aacatggcta	cccagggaaa	gctcgatgcg	gcacaggcgt	4140
ccgacatcag	tcaactctgg	caacaagcag	tcaagaacta	tgagaaaaag	accaagaagt	4200
ctctgcacct	ggcgcaattc	agcaacatcg	accaaataat	gaagggcacg	gaaggcttgt	4260
caagcgagtt	taaggatttc	cggcatgacc	gatcgaaaac	agacaatgtg	cggactgcat	4320
tgaagaataa	tttatggctg	attcagaagg	tcgtgaatac	agtcgaggtg	gttggggaatg	4380
ctgcacgggt	atgttctctt	atgtggaatt	cagcgtgtat	gctgttgatg	ctgatgaggt	4440
taacaggcct	cccccccg	aatgccagcc	agcttgattt	tcacggcctt	tggacaggtc	4500
atgcagggtac	gaaaccctg	ttgttatcaa	taagggtatt	agattctgat	aaagccccaa	4560
gtcttttgcc	gcggtatccg	ccgactatga	caagatcatg	gggtttttcg	acttcacgca	4620

tcgcttcttc	gaccggctct	ccatgatcga	ggataaaaact	ccccagcaag	cgccgttcca	4680
gcgatgcgtt	gcgcgggtct	tctcaggcat	gctgaccatt	tgttccatgg	cgcaggaata	4740
tgccgagaag	aaaagattca	gtaagcagct	ttccttgatc	ggcttttttt	tttgttatag	4800
cggcgtaaat	taaaatcatc	tcattctagaa	aagtggtttt	ccagtttgat	cgatggatcg	4860
gatggggctc	tttctagtgc	catccaggaa	atggaggagg	ccgtgaacga	gctgacgcaa	4920
gccgttgccc	tagctacgtt	acgaaccgtc	gagatcttag	acgacatcgt	ccatagcatg	4980
aacggaaacg	tcgagttcct	cgtagcgcag	gtcactgtaa	tcgatggacg	aatgaaggac	5040
atcaaaccg	acacagggac	tatcatcgaa	caaaccaga	caactggaact	gaaacaggac	5100
gccatgctca	agatgctgaa	cgagcaatct	cggcttttca	acgacgcggt	gcaaagtttc	5160
gagtatatcc	aaatggggtc	taatttcggg	cagagcttcc	aaaccagttt	gctgaaactc	5220
gacgtcgtaa	ggctcaagct	gactcgggtg	ggtcagtcgg	ttggactggc	gaatgtggac	5280
gacggcgtga	aacagcttca	gatgacgaat	ctcgtccccg	aagatcaaga	gcaggtccag	5340
gatcttctgt	cccaaattct	ggagctcttt	gcggaagctg	aagcggcgtc	gaagcgattg	5400
cgacgaccaa	tcccaacttg	aaagtgctgg	accccgccga	agagctagac	ggcgtctcag	5460
caccactgca	ccagaagatg	caagatctcg	ctaagaagcg	gcagggaaaag	tccgagttgg	5520
agcaggacca	agtgactatt	ctgtacgagg	agaagaattt	cgcgcggctg	atcgaggaca	5580
tcggtgaatt	ggtggatggc	ttggtcgac	ttttcccagg	aattcaggaa	gagcagcgca	5640
agctgtgtga	agaggaggtg	tccgggttga	acgcgaacga	gggcgctctt	tcgctgctga	5700
aggaggttgc	tgctggccag	gacaagctgc	tgagtgaac	ggttgtaaaa	gtcattcaat	5760
ccactacctc	ctacaccaac	agtgtggtat	tttcgggacc	caactcgggc	tttcagatag	5820
ggaacaactc	cggcaagatt	agtgggtgtc	gctttggtgg	ttcctaatta	tgtctggcat	5880
gtggtaacag	ttcaagacaa	acaacgaatc	catattactc	ttcatctact	atcgtgaacc	5940
tcagcaaaaag	tagtgttccg	ggtgtccata	aagaatgaga	ggcaactgag	agaatggcta	6000
caagcgtgca	gctctcgtga	gtcatattga	gaagatgggg	agaaattgac	tggtaaactt	6060
tccacagctg	ctacaacaag	gaacaacata	caacaaggat	tattagatac	tgataaaaca	6120
taactgacct	gataccaaca	ggatttgaag	cttcaccagt	caacctcgct	agtcaactcc	6180
atttctcccc	aagtccactg	cagtaacccg	ctacaccgtc	atagctcaag	tgttccccag	6240

tctgcttgta agctccgtcg atcgatatta aagcttgaga cttgaccatt gtcgtatccg	6300
acaaccactc gatcacccgtg cgcatacccaa cgagtaacat agaagtcagg cgacagccga	6360
aggaagggca ttgccccata gcataaccac tgatctcggg ggcacaggct ctgcaatgaa	6420
tccgaatccg aatccgaatc cgacctcaact ggccgctccc cttctccttt tgtcgggggtg	6480
ctctctagtg gtattgggtcc aatgtctgtt gcaagggtatt gggtgcctgg gctaaatata	6540
acgtcataca cctgagcggg tggcttaata tccttccatg gccggggacga tttgatatga	6600
ctaccgacag cgcggcccag atattttgag gctttgaggg atttttcgat gctccagacc	6660
cggatggttt tatcagcaga ggctgccggc atatgctgac cgtctgatga aaaggccact	6720
gaaaagatcc agtttggtata gcctgagctg cgtgaaaaag catcagtaat gatgctgtct	6780
gaatggcatg gtagtctctt ctggaggtct cctgttgacg catcccacag cttaatggct	6840
ctatcagtgg acgttgataa aattagcttg gcatacaggag agaaaaacag ccccgatgatt	6900
tgggtattga agatcgcttc ttggagttgg atatcgaaaa cctctgttgt caccagggaa	6960
tcaaatttgc ttctgtagcc cgccattgtc tttaggagac tgccctgtggc catatcccag	7020
agcttaatcc tgccgttaca atggcctgat gcgatgtgct tgccgtcagg tgagacagcc	7080
acaattgtga acacgtcacc gctctcaaat gagttctgga ccttacctgt ggcagcatcc	7140
cagattttga ctgcctcgga ggagcaggag acgatctgcc tgttgtctag tgaaaagacc	7200
accttctcta ctgtgtctag atgccctgtt agggttttct ggagatcgcc cgttgacgca	7260
tcccaaagct tgatagtctt gtcagcagag cctgacgcaa tcaccttgcc gtctggtgaa	7320
aggaccatag ttgtaacatg ctttgagtgg cctacagctt cctgaacgcc acctatggta	7380
atatcccaac gcttgattgt cgaatcagta gagcatgtaa caagctgctt gacgtctggt	7440
gagaaggcga tagacataat tgcccctgga tggcgctcta gcgtcttctg aagagtgtcc	7500
gcagcatccc aaataaagat tttgccatct ttaaagcctg ctgcgatctg cctactgtcg	7560
ggtgaaaagg ccacactccc ggcaaaaccg cttgccagtg tcttgagcag gtcccctgtt	7620
gcagcatccc acaacttgac ggccctcaata gagcctgaca caatctgcct accatctgat	7680
gaaatggcca cactcaaaac cgttcctgtg tgaccaacga acgtcttttc aaggtcacct	7740
gtggtagtgt tccagagccg gacagtgcag tctacagagc ctgttacaag ctgcctgctg	7800
tctgacgaaa aggccatagt tgagcattca tgtgagtggc cttttaggat cttctggagg	7860

tcccctgtag	cagtatcaaa	gagcatgata	catgtactat	cacgcgacca	accgaatgct	7920
gcaatctgtt	tgcaatccgc	cgagaaagcc	cctgcgtgga	ggccgtaccc	gccctgttca	7980
ggtggctgca	agtaggtata	attgaccttt	gatatgccga	agtggtcggc	tatctcttga	8040
cggtcacctg	tggtggtatc	ccagagcata	acagagccat	cataatagcc	cgatataatc	8100
agcttgctat	ctggtaagaa	cgccattgcc	ttgacttgct	cctgctgtat	ttgatatcgc	8160
cttttcgggt	ggctccctga	tagtgtcttc	tggaggctac	ctgtagtagt	atcccagagc	8220
ttaatcaaac	cactgtcaga	gcttgatgct	atttgcttgc	cgtcagggtga	gaaagcgact	8280
ctccagacag	cctctgaatg	acctgttagt	gtctgtatca	taggcgtcca	actatcctcc	8340
ataggaggag	ctcttcccag	ccatacagga	actttgtgaa	ggttttcgcc	tttcacaaca	8400
cttgattcag	gactgaaaat	gatggcagag	ctgtagattt	gcagtggcca	gtgtgacaaa	8460
gtgtggtaat	gtcgtaataa	aaagcgcata	gcatacctgca	cgaatgctaa	agcttgacag	8520
tcatcctttg	tcaacttgat	cagtaaaaga	gcaggcgtca	ggagaaaaca	tcaagaaccc	8580
actttcagta	tttcttcaag	tactcttaac	gcgtcaatgg	cccttggtag	cctgtccaac	8640
agacttaggc	attctagcca	ttctatcaac	tttgtgtggt	taaatacgct	aacttggctc	8700
ttgtcgctgg	gggtgcttgt	gttctttaga	tgtgacaccc	agaacatagc	tgcatagtcc	8760
acgcgagaca	gtacgccatt	tgtcgggtcca	tttcccaaac	ctaaagtgtc	tctcgtggca	8820
tcgggccgcg	gcaggttgac	aagggtgggc	ttgagatatt	cagataaata	ggtcagacaa	8880
gcgagggcaa	tttcttcatg	tccaaagcgt	ccatgagagt	cgagtataga	cagcccagtc	8940
cctgcggcca	agtagtctcg	cgctgactga	tgaacaaact	cgattttgtc	ttcgcgcaac	9000
cggatgaatg	aagcacagca	atcgactaat	gctctaattg	tgtcctcttc	atcggttagg	9060
ccgatcacac	tagcgactta	ctccactttc	aaaggtcggt	ataccgtcat	catggccttg	9120
agcagtcgca	tacacttctg	tacttcagcc	agttcgctt	cattgagctg	gttcaatacc	9180
cgatcataaa	gcggatgcag	acccggcggc	aagctttgaa	ctgtggacag	agcgtcatct	9240
cgagagacac	tctcgagcgc	cttgcatacc	aagcttacct	ataggaaggt	accttccgat	9300
ctttcagtaa	gtcagtcctc	tatttcgctc	ttcagggtcg	ctccatattt	gtgctggcga	9360
ctaagctcct	ccactttgga	agtgatataa	gcctccacag	ccccagatac	agattgggaa	9420
ttgtgttccc	catccagatt	gatttgcacc	tggtcctgac	cagctaataa	cacccgctct	9480

gcgccgtccc atgggtcggt tgtcaacatc cacttgacct taccaggctg atccagtc 9540  
 tttcgcacga tggatttgag aaaatcaacc atgtcggtat cctgacattc atcgagcgca 9600  
 tcaacaacca tatataccct agagtaactg caccggggcca acatttcgaa aagaatgttc 9660  
 cacaacgatt gccacgaggt tacatcctcg ctgaaagact cctgtatagt gtcccaccgg 9720  
 cgacggagcg attctttcag ctctgggttg cgattcgcca gctgcagaat caacccttg 9780  
 agaatggctt ccaatgtatt gagctcgtag tcggcattct ggcagaaaga ataaatcacc 9840  
 acggtggagt catcctgcgc acgggcaagc tgttcgatca gaccgattga caacatggtc 9900  
 ttccccttcc cagcgctcc cttgatccaa agcaggccga cgtcatcccc attttcccaa 9960  
 tctttgtact gcgcatttc aagaatccac tgaatggatt ggtaaacc aa cctgtccttg 10020  
 ctctctttca ggcgattctt cacagccagt gagtccgggc agcgagagc atggagacaa 10080  
 attcgatcaa tgtcttcggt ggtgtacgt agaaacagcg tttagtctcc ttaaataaac 10140  
 tagaaatcac ttggaaatta ccccgcgcca catggaattc tgctgtgatg gaacccgagt 10200  
 tgtttccgat ttggaggcca tggtttgccg cattaagaagc agtggacgtg gccatcatca 10260  
 aag 10263

<210> 5022  
 <211> 2569  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5022

cttatcagtc agttgcagat ctatgacacc caatcttctt ttcgtagata agttactaat 60  
 attcgctttt gcagcacaca tgctgattta tatatttact ccgcggaaccg ctgcttcagc 120  
 tgggtgttca atgggcacag gcaccatcag accatgtccg gctgggagag acagcacgag 180  
 ccggaaagta cctacagata tgcacgtctc cgtcatatcc cacccaaagc gcaccatcta 240  
 gggcccgtca gccgccaccc actgtcaaaa ccgaacgtcc ctcgcaagaa aaacacaact 300  
 gggacgacac atatgcgaga tacagaaagg cgcttggatg gcatccacgt ccatcagcca 360  
 gggcctatat gctcactaat atggccaccc ggcaagggca aacaggaagg agtaacaaaa 420  
 caagcaacgc ggctgccacc agtgtgtcat cgaacacgaa ggcaactaag aatgggggtga 480  
 atatacacia cgatgtagca ggacgaggct cagatcggtc gtcctgcca taaaatgatt 540

gcctggatac atgctaccga gagaggtgca accatccaga cagcaagaag cagcaactat 600  
agctaggctg ggagctcaca tcatcacatt agcattgcaa gcccgaata taggagagaa 660  
cagtggctga acggaaaagg atagccagga accgaccag atattctcac acgggccata 720  
tagggtaccc aaagaatatt ccaagtttgc cgcgccagaa tgacggaggc cccatcgtga 780  
tacagcatct catacacact gctgccgccc cagcatcata caagcatgcg gttgaaaatc 840  
aaagccaggt aaccacatgc ccataccaga acaaaaaaga gcaacgaaca caatggcacg 900  
tgctcatcaa gctgacggac agcatgagga agttgtgacc cgtcttctag atcatctgtc 960  
agacctgccc gacctgcctc ccccaaacc cgcagacgc tgcaaccgg aaacagatag 1020  
agcctctagc ctatagttca ttgcaaacgc cctcaacgcg agacacatta ggatacctgc 1080  
taagaatttg tcttcacccc acgggtcgat cagatctgat tccaaactgt gaagtatacc 1140  
atgcaaggaa agtataagtt gctataggag gaaaaaagg accaagattt catgcgccca 1200  
tcaccatgtc tgaaaatata agcaagcaca ccgccagtga ggcttgactg ccatgaacag 1260  
gaatagtcaa acaatggtaa gatctgtagc cagtgccaca taggagggcc aaacagttgg 1320  
gtggatgacc aggagaccag gcgccaatga agctcttggt tggaaaggcc caacatctcc 1380  
aggcagggca tgatttaca actctaaaag aggtgctgac cacttttagca gcgatatac 1440  
agtattggga catggtcaat tcaagaccac tgtgaggttc aaaaagacca acacatatac 1500  
tgtttactaa acgagaaaac gatgagtaaa aaagatggag cagctgggaa tcgaaccag 1560  
gacctctccc atgctaaggg aacattatac cactaaacca cagccccatt tgatggtaaa 1620  
gacctgacta actgactatc atgttcttgt gttgctctag gtagtggcaa aatatgctcc 1680  
atcacaaccc catctgatat gagccctaga acttttttct ttctcgctc caaaaagggt 1740  
ttgtaggtct gttcatggg aagaaaaaag aatatggagc agctgggaat cgaaccag 1800  
acctctcca tgctaaggga acattatacc actaaaccac agccccaact tatggctcct 1860  
ggttatgggc gtaggcatct tcttgccgc taagctgcaa gcaataaaaa gaatacaaaa 1920  
agaattcgac atatagaact acggagagag gcaaaaagtg gagcagctgg gaatcgaacc 1980  
caggacctct cccatgctaa gggaacatta taccactaaa ccacagcccc atcttgatgg 2040  
gtaattgtgg acagacgtgt ctcaaaatg gctcggttag gcggtacgtt tgtctgcagc 2100  
gacaatcact tctccgcgt tggatgtggt tgactgctt tgaggcgatc cgcaagttcc 2160

aaatgcgggt tgtgagaata ttcaggggga atcaccgcaa agctgtcatc cataagcagc 2220  
 gagtacagag agtagtatgg actgctggag gccattgtt ggagtatcgc atctctgcct 2280  
 tctcagagct gacatccgtt tgttgccagga ttgatctcaa acattgttag ctgaggattg 2340  
 tttcatgtag cagcagcgtc gacattattc acttgacgga ttggtgccaa cactgtcagc 2400  
 caatttcacg gcaagctcga gacaagtttc cgttgagtga ccaaggaagt tctaccgaag 2460  
 tcgcactatg ttcatagctg acatctcccg aggtccaaag ctcaacaaaa ccaaagatac 2520  
 cactggccag taaagaacat ctgccacga agttagcagg atggtgtga 2569

<210> 5023  
 <211> 2994  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5023  
 taagagcgtg ttcgacgaag ccattcggta tgctatccaa cgatgatggt gtttgtctat 60  
 gttggagcta atagtgactc ccttagtgct gttctgaacc cgcgacctgc gacgaaacag 120  
 aggaacaaga agtgtacgat tctgtgaagc gcaatcgtc catattctat atttctgttc 180  
 ttgctcctga ctaataatat aaataactaa tccggcgttt cggttgctgg ggaccatcct 240  
 ccccatcccc gatttttatg atttttttga gtactttttt ttgtccacct agtccgggtg 300  
 catgatactg atgttctaca tttcttgctc ctctcttctt tccttcttct cttccttctt 360  
 tccttcttct tttcacttaa agtttgtcgg aatacaagag agggtttctg tcgtcttgca 420  
 tatttgcttt caggccaccc cagtataaag atgtaagacg gttatacaat tccataccca 480  
 catacatctg ccagcctata gatataccgt tgtactctta tcacaatttt atgggctttt 540  
 aatggctttc ctctctgcgc ggccattcct gtccgcgcag taaggagctc aggaaaagg 600  
 cgtgcattat aaaatcacgg gactcggaaa gctccagaat ctcatcgaat cgcaaacgag 660  
 atatcaaag gaatacaact atcttgtagt aaggagcagc tcagaaagtt gcgggggaaat 720  
 tccccctatg atgagaccac ggtcaagaat caaaatagaa acacaggact tgcttgatta 780  
 gctacctggt agaactaaga atacgaagac acgaaatccc cctcaagaac ctttctatat 840  
 tggtaggtac ttcgatacga ataactctcc catatcgccc gttcacgata tcacggatga 900  
 gttgacaagt gcatcgcttc gacacggggc ccaagtccag cagccgaac gaaggaagtc 960

caacaccatc atcttcgcag ttaggctaata gcaacgaata tgtgggtaac gatagacgac 1020  
 ccgtcgcggc tgctatctgg gggataactt ggactgggaa gaagggaccg gaacgggacg 1080  
 tggcttctgg cttaaaaacc gtggacctta atgggtcttgg catcaagctc aagaccttcc 1140  
 ttcttgctgg tcaagaactc ttgaacatcc ttgcgctggc ctccctgaag ctgaatcacc 1200  
 tcacccatct cgggtgcatt gacgatggcg ccattgcaag ctagggctca tgtagctac 1260  
 gatatcggaa ggctagcaag gcacaaagag cataccaaac ttcttcttga tcaccttcaa 1320  
 gatcttcttc tgatcgaact tcttagggag accctggacc gtagtcaagg tctttcgcac 1380  
 attgcgctct ggagtgcagt tagtctcagg tccaaaagcg gtgaggtgcg atggagctcg 1440  
 tagcgataaa ggggaagtcg cacgtacgtt gaatccgtat atggatgtag ttttgagact 1500  
 gcttagtctc gccggtgtct tcgtcagctt cggcgaaggg gtctatagga gcacgtgtca 1560  
 gcctgggatc tctaccagaa ttaccccgcc agaagggccc acgcagatcg cataacgcag 1620  
 actaagcagg gagctggctt cttcttgcag ctgcactcg cagaatggct aaatagctgg 1680  
 ttccacgagt gtagcaggca gtcactctcc caagataggc gcgtcgcaag ctcattggag 1740  
 caggcgctga gaaaggggtg gcaaggcctt accgaaggtc ttaaggtttt cgatggacat 1800  
 aaactcggcc tttagtcgta aacggccctt aaaagcgggt cttgtaaatg aagcaggagg 1860  
 ggagaataaa tctcagtgat agagcgatcg cgggtctgcg tgttctgaag tacggagcgt 1920  
 tagagtagtg tgatgtggat gaaggaagga aagatccttt tgagggggcg agtgacttgg 1980  
 tggccttagg ttgtggggaa aggcggtatg acagtgacta agcggttttg cccgcctact 2040  
 gcgccaatg actctacagc cgcacggcgt acttggctct tagcctttct ctttggctct 2100  
 tgcaagccct gtactactca agaacctatc gcataaggag ctcgatgcgc caagcctact 2160  
 gacacgctgc cgatgttgcg agggaaaaatt ttatgtgtag cgtgcgtgac ctattccgat 2220  
 gatgtggcaa ttagtggcga gcctccgacc tcgcccagg tttgaatgga aataccgtga 2280  
 taatcgcatc tctggaaaac agagtcattt caatatcaat ttattataga ataattagaa 2340  
 gcgatacatc cgcgtgccc aaaggaagtc catatctgcg gagattcgca tcatgccggc 2400  
 cccctccct tatcgtgaat atagaaaacg ccgcaagtgc ttggactccg attattctgg 2460  
 cggagaccat ttcaacttca tcgtggaccg aagaaatctg ggcggcttta cgcagctggc 2520  
 gtgggagacg gcgtcgggac ggcgcgccg cggggggccg taggaggaag gaataagggg 2580

aggtaggtct gcgaagggtta cattagaatc ttgcgcgtcc ttttcgaaag atattccagg 2640  
 agctcgacaa catacaacag ctaaagccat cactataacc gtagctcgtc agttgggggtc 2700  
 attttcaaag tcacgtatag atagcgcaac atacaagaca ttccaacaga catgtatgct 2760  
 ggtgtttagt cattcttctt ttgctcttcg gtctcaccaa gccaggattg aagcgagaat 2820  
 accatagcga ccctagtact tgttagtttc ctgagaacga ctggtaggcg gcacatacca 2880  
 tccgatcatt ctaaacagca aaaagtgtca agtgagtagc gcatttgaag caattcccaa 2940  
 ctcacctgtt gcgtgtaaac atctataagg attgtcaagt attgcttgat aaaa 2994

<210> 5024  
 <211> 13260  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5024

catcgctgta ttcaaggaca tgatgggtgac aggcaaggat tcggcaaacg attcaacggc 60  
 tctgtacact gcagccctcg gactgggtgg gaacctgcag gcctcagctg tttccgaaca 120  
 ggatgttaac aaagtttccc tttccacgct cacggctcta ccccgctcgg tcgaaaatcg 180  
 gtttttctac gccagctggt tgaaaaaact gattggaatg ggtgaagtcg attccgcccgc 240  
 tttggtagtc gagctgatgt atgaacgcgg tgtgaggcca gatccaaagc atcttaatgg 300  
 tctgattgcc ggctggctac gcgaggggaag cgcgcctgct cgagagaaaag cggaagagct 360  
 aggctgggtcc atgatcaaac agcggatcga ccgagtctcc aaagccgaag caaaggattc 420  
 agagcaacca gaaactggac gcacgaatgc tcgaattcca aaattcatgc aacgaccaat 480  
 gcctgcagcg accattgaaa catttttcgat tctactcctt cattatacca ggcgaggcga 540  
 tcaagaagca gtcgaaatc ttgtcaagaa tctcacgctt tcccgtattc aacctaaact 600  
 ttacttcatg aaccatctcc tctacgtga acttcgaaaa caggacattg gtgccctctg 660  
 gaacaaattt caagtactat catcttccgt gcagccagac cttgaaacat atgcttgccct 720  
 ctgggactgc ggcaaacttc aatacgaccg cagccgcaca gcatacttcg ccgagtttcc 780  
 aacagcccgc gcgctctact caaacatgat gacctggttc tcttatcttt ccacccgagc 840  
 ccagacaacc gcccggaag acttttccaa agacctttac gaccaaatca tccgctgctt 900  
 ctgcctctcc aaagacctcg caggtacact tgtcgcccta tgctccctgc actcaacctt 960

cggcttccac cccgacgaaa caacagcccc tctaatacatc ctgcaagtcg cacgtctcgc 1020  
 cgccgtccca tcggataccc cttaaagccg tctccgccgc atctcctcaa ccccgcatag 1080  
 caaagcgaat atcgcgccagg tcaagcagct tggtgagatc ctcagtgatc gcaaataccgc 1140  
 cacacttgaa tcgagggggc ttaccatcag ctcgctagat ccgcatgaga aagagatgca 1200  
 tcagcttgag atcatgactg atctgctgcg catcgatcatg agccggggccg atactagtcc 1260  
 taatcaaaca cctgatccca accgtgtaga agagcagctt tgcactgttg cggaggagat 1320  
 ggggtgtgcct gggatttatac ttggggccgag attggatgac gagaacgctg gcttgggtatc 1380  
 aatgagataa gagaatgtat tggatttggc ttgttcataa agggtaggag ggatatttgcg 1440  
 gcgcttatat cgtgtataga gggagtctgg gctgccccat ggcgttactg tattgtatca 1500  
 cattactcgc tgcttgcata tcattaatag actaattccc ctctcgatga ttttaagttta 1560  
 tactaactac tctgtactgt aacttcccta cccaaggtaa aatcatgatt tccagatcca 1620  
 accaactctc ttgaacatcc tggatatgcg cattacgtca atatggccta taccgtgata 1680  
 tgtttccaag caggacaact cattctactc aagactcatg aagctgaaaag tcgattctgc 1740  
 cttggctgtg tggacgcacg aggtgtggct gcggtatcgt ggctttgctg tggttagacc 1800  
 gaaacttgat gcaaggcaga ctttattctc attaacatgt tgctgacatg cggcaatcgt 1860  
 ggattatgga gaataaacia gaacagatgc ggtgtatttc tccgatagac accctcattt 1920  
 gtcagagtct ggccctgaggg aacagataca ggatagtttt ctcagtcttc gatctgtggg 1980  
 gtggtggaga tagtagaagc tgaaccgctg aaccagaatc taagcagtgg atatctgtca 2040  
 acatcaaat gtgtacaatt ataccgggt cctcagaggg aaggagtctc gcgttctgaa 2100  
 ttggctgaga aacgctacca gtccctagcct ctagtttggc gctgactggc gcttgaagct 2160  
 gcagtgttgt gataccaagg tagcctcgac ttctttcttt tttctcccc accctgttct 2220  
 ggctgctccc cttctttgtt cagccctgtt gtcggttttt tcttttctca gagcctactc 2280  
 ccaactgtta aaataattat tcttctttc caaccaacia acccccttgt ttttaacaaa 2340  
 acttagtctt cttttgcttg ttgccttccc gtcgttatac tggccttaac tatectgctg 2400  
 tcttttatct tatectgact tgctaggtat tggcctctcc ttctacgtca tattgttgat 2460  
 tgggccacaa ccatcctggc cctgtcgatt atatccgaag caaggttgaa tgacctagac 2520  
 ttgcgccaga gactgggcaa cgttggcggc tcgttctctt agaactctgac gtgttgcccc 2580

attctttctta	aatcctcctg	ttccccgatca	tctacaacgt	gctagacatg	ccacttttgta	2640
cccttctcat	caggtagtag	tgctacgtac	ctctggacac	actctagtct	gctgagaaga	2700
agagctacac	cctcctgctc	ctgacccctg	ttgagtcgct	gagctttcgt	aaacgatcga	2760
gtaagaagat	gtcggctgtc	tcgcctcagt	ttgtccagag	cgactcgaac	gatagaaatc	2820
tcgaccccg	actctcaaac	ccctttctta	ctgaaaatga	ccctgaagag	gcggagttcc	2880
aaaaatttac	aataagattg	acgcctgtcg	acgaccgagg	gagcgcatgg	actggatcta	2940
cgctctcgca	ggatcactcc	atcaataaca	cgccacacac	aggcaatcat	gagggctacg	3000
gtaccaccta	ctctgaattc	ctcagcccag	tgagcagagt	ggccagtgat	ataagcggcc	3060
atacatcacc	tcagatctc	atgattccag	gcgtttggcc	agtcattgct	acatcacctc	3120
agaacgtaac	ggcgagctca	ccaactcaat	ctgggtccag	tccgtcgtct	ccgcccgcga	3180
gcataaaccc	ttcccagctc	cttacgccag	ttcttaccaa	tcacccaagc	ccagcgctcg	3240
atacgaggag	cggtgggagc	cctcggattc	cgcgggctca	gcagcctccc	gtacctcggt	3300
tgaaaacaac	gctcttagat	gacaatctcg	gccctggctc	agtttccgag	tcggtcacaa	3360
cgatcagccc	aattgtcaaa	gtggagagct	attcacgagg	cgattcgcgc	gtcagggaca	3420
gcttctcaac	aaaccgcgc	ccaagtcaat	cctccataca	tttgtccccg	gggggcgcgt	3480
ccaacgcttc	gggtgaagat	gctaccatag	aggatgatcg	tcattccggt	tcaaggtcag	3540
ccgatggggc	atgggtccca	aatgtgctga	ctggccaagc	cggcctcgca	ccggatgcgc	3600
gagaggatgt	atatgttccc	agccccaatg	aactcgactc	acagcgaaaa	ctagcggaaa	3660
ggaatgccga	tatctataca	tggtcagagg	ccgttagtga	ggcccacagt	gaagctgggt	3720
atgattatct	gtgtttccag	agagggcgaa	cagattacca	tggcactagg	cggagggcga	3780
aaagtaccgg	tgatccttca	ctcgattatt	tcagtctaaa	gttcacccct	gaccgatctg	3840
agatccgtgg	gccgggtctt	gtgctccatg	agacaagcga	ttatagcgac	gatgaaacag	3900
agtcactctg	tcctgttagt	gtaaaggaag	agagattggg	ccaggaagca	tttgaaatga	3960
cgccccctga	acctcagtct	gcagaaacgg	gtgagccgca	agtcactcag	tttctcgggt	4020
ctcctccgtg	gcgtgacatt	gagctcgacc	ggtctcccca	aacaacacgg	atgcagccgg	4080
tcagctccac	tcaagctatg	gttgaatacc	aaagacgtgc	tagagagact	gacgctatat	4140
cccgcgttgc	aacgtggggc	acgcgcgac	ttgatgcca	cagtatcaga	tccttccaga	4200

tgatgagcct	caacgaaaat	gggaaagaaa	agaagcacga	gagacgtaac	agtttttctca	4260
agtatcttcc	ccaaaaaaa	ggcaatctcc	tgaaacgtca	acgccaaaag	actgatcttt	4320
ctaccatgca	gcctgtccac	gaaggcgaag	cccaggacac	ggagagcaag	gctgctcccc	4380
agaggaaaga	cagcttcccc	caccgattaa	gtctcccctt	ttctccaaaa	actaccctaa	4440
ctatagtatt	agtggtgcg	ttatggcaac	aacgaggcag	atggctgcca	ttggcggcaa	4500
agattcgcta	agtgttgat	ctccaagcac	aacaacaaca	acaacaacca	aaccttgga	4560
tactctcaag	gttcggggac	ggagcagaag	tgaagtaccc	agagcaccag	gtttgtttga	4620
actcatgaca	acccatggcg	gaccgccagt	tccaatatc	agctacacaa	gtgagcccg	4680
ggaaaataaa	gaggccaagc	atgcgcggcc	acaacatgat	gctgccgagg	aagatgatga	4740
cgatgatagc	gaagaaaagc	ttattatgga	atttccaatt	ccgaaggaac	taccgatacc	4800
gacactggaa	ggattcaaga	cacagattct	ccggctcaac	ccccgtatcg	aaccggcttt	4860
gattgatcga	tttgacacg	agcagggtcc	acgatacaag	aggttgatcg	agatcaagca	4920
aacacacgca	cgcgatgtca	accacaggaa	gtgcaaggct	ggtaaattct	gcttcgcct	4980
gggcggtaca	gcgaaacttt	taccaccacg	cttatcagct	caggatggag	attcgcacac	5040
ccagttccag	attcctaggc	cgggagagga	ggaagagagc	tccgaagatc	ttggggaaac	5100
caccatgtta	gcccatttcc	cgcaaggcgt	tccgcatcca	ccaccacagg	tcaagctact	5160
gccggctgaa	tttgaatgta	tggtttgcta	ccatgtcaag	aaattccaga	aaccgtcgga	5220
ctggacgaag	catatctatg	aagatgtgca	accattcact	tgcaagtttc	ccgactgcac	5280
cgatcccaag	tccttcaaac	gaaaagctga	ctgggttcgg	catgagagcg	aacggcaccg	5340
gcagctcgaa	tgggtgggaat	gctcgctcgc	tgattgtcgc	cacaagtgtt	atcgcaaaga	5400
caacttcgtg	cagcacctcg	ttcgagaaca	caagatgcca	gaacaaaaag	tcaaaaaacc	5460
aagaaacagg	aagttgtcag	acggggcgtc	gaacgacca	acttcccttg	aggtgcagga	5520
ggagatcaac	cgtgagcgag	agatcaatgg	cctgtggaag	cttgtggaga	gctgtcattt	5580
cgagactgcg	agaaatcccc	gcgaggagcc	ttgccggttt	tgccggcaatg	gtttgcacca	5640
attggaaaaa	gctcacggta	catctggcaa	aacacatgga	gctattggct	attccaattc	5700
tgggattcgt	gttatataga	tatttcccgt	acaccgtcaa	tatcggctcg	agtggcaacc	5760
cagataattt	ctctgggtcaa	gtgccgatcg	cccagaaaga	cagcgatttt	gatccaagat	5820

tagacactgg agttaccgag gggcctggaa ctgCGGACAA tttcacgcag gcaccgtatt	5880
cgaatagcca tccaggggtct tccgaaccga ttatgttacc gttcaatacg ggCGCATCGT	5940
acctccctaa CGCCTctatg cctttggata gtacagcacc caaccCGGCA gctCGTTTCG	6000
aaggagtcac gccgtacaca gcacatggcg gagggCGTGGC tggactCGCT ggggaccaga	6060
cacggttaat ggccatgcac cagcatcaga attcagtcac ctaccctcca ttcaacGCCA	6120
ggCGCGact aactgtcccc aatcaagaca tgagggTgct gccggaatat aacagtttct	6180
ccatgtcccc cacggagatg cagtacgac cacaaccac ggCGTACGTg tccagCGGag	6240
cggagaacca ctatccttac caaggaccaa tagcttcggc tatgccttac gattcagggT	6300
accaaggcca atgagttggc cttggaccag ttaacggCGg gatttttcca gctacttttt	6360
gtacgtgata cccagTggc agacttgacg gatCGTgggg tggaaaccgt ggaatggagt	6420
tccaagctag aactttgctt ctttggatgg ccttgTttat tgccatgttg agaactacac	6480
ggttgacatt gattctcttt tttcttattt ttattactct ctagcatggT cgtCGCATgt	6540
gatCGGCGtt tgTtatatca ctctatatac ccttgaaacc cccctcccc cttattgggc	6600
gcggtgactg ctCGacatga ctattagctc tttttttgcg atgattcttg gcacagtgcg	6660
atagatgtat atgacggac aatgattatg atattggacg tctttcgata gacttgTcaa	6720
gggaacgttc ctagtccact tctccagtga ttgaattgaa ctactgataa ggactatgga	6780
gcaataccta ctattccgga gtccgtagtg gcttaactag gccCGGCGat cGacatctga	6840
tggaatGCCA ggattgtcgg cttgtcagtt gttcttcttc ctacagCGga gtagctgttt	6900
ctcaagcctc cttacaggca cagccacgcc gcttcagaga gatgagagtT tacaccgtag	6960
agacagcctt atgacaacct tgattcctaa taatgagcag caaatgagaa tttttcatat	7020
ccgCGGatgc ctcactttca tctgcagcca acagcactaa tcctgcacac actCGGccta	7080
ttctCGTccg ataatcatag tgcctaacga gtcttgacac gagtctagtc ctgtcattct	7140
tcagtgttcg cgtggggggc cgaagacctt tgctctcaag attgtctttg catctacgaa	7200
atactctgct cacatctgct tgcttttttc tccCGgttc aatccctctc tccaaccttc	7260
ttccatccga tcctttcttt ttccgcacac tcaacGCCTa tcgtccaggt tatgtccaac	7320
aaaaggTtgt ccacataatc gcctgagact ttggaccCGa tcccatcatc tgtcaccgcc	7380
gcCGTtcac tctagtgtg taaactccgt ctttcagcc tccCGcttcg acctatatga	7440

cgccccctgcg ttcaatccca acagtgtcac tgccagcatt ttccgtctta tcgcactcct 7500  
 cgcttgagtt tcgtcggttaa cacagacctg tgcagaaaat ccctgctcga gtcaattctt 7560  
 gtttgtcttg gtgcacccga ttgccactat gagtgtaggt acccgctcag ttctccccga 7620  
 gcttgccctg ccccaaacc tcacattgac tataaccaag aagaaaaaag tataatttat 7680  
 ggtactatgc atcaagaatg ctaaataattt tcaggggtca aaccatatct ggggcgactc 7740  
 cagcgatatt cttcagggca tcagttcaac gcctgcaggc gagctttctc ccaacgaacc 7800  
 ctccgcgaa ttgagcccca gcgatccagc ttcttttctg ggatatcagt ttgcgacaga 7860  
 ccacggcgct ccttcacaaa atcacggcct cttccttaat cactggatac gacccccaaa 7920  
 gcagtcggca tcgcccagtc cacagcctct cgaatatttc cactactcgt ctgcgcggtt 7980  
 cctgagagac caggattcat ggactcccct tcgaatcacc ggtgtacctg ccaatgtgac 8040  
 ttactccacg cggccatcgg agatgggttca agagctgggc gagtttgatc gtaggtgttc 8100  
 tgctagccat tatagcgaac cctctgagac tggaagtcag tacaatggcc tacactcgtc 8160  
 cgactctgga tacagcactc gcagttgcac gacacggtec atcgctacct catatgctgt 8220  
 aggttctgct tgcagtcgc gccttaccct gcaagagtac gaacatggcg agaaaacggc 8280  
 gccggtaggc gccgagttag cgcatacatta tgaacctatg gatattgtcg gtccaccaga 8340  
 gtgcgcgtct atatttggtc atgaagtgat caaatgcgac tacccaaaat gtccgtggac 8400  
 tggcaagtgt ccgtctgata aaaggtaaac accttaagcc gggtcgcgtt ttgtaccgat 8460  
 ttctgattg tattatgcag aaaacatgaa gcccggcata agaagctatt taagtgtgat 8520  
 atactgaact gtagacgcaa ggaagggttt ggcaccatca atgatcttgc acggcataag 8580  
 aaatgcgttc ataagaagga gccggagcgt gggcccaagg tattatatat gtgctttgga 8640  
 cggaactgcc cacgaagcag taagaagtgg ccccgctgg acaatttccg tcaacacctt 8700  
 gctgcgatgc ataataatga agacgccgat gaactgctga ggaggtaagc tcacacgtaa 8760  
 atcctactaa gtgaagtatg aagtctgacc ggtctcagg tctcgtgagt ggtacgaaaa 8820  
 cctaaagtca aaggatactg tatctataca tacggacaac atgcctgaac aggcaacact 8880  
 gtcacaagtc cgacccgaat caggaatcat ggttcaatcc gctagcaatg acctccaaga 8940  
 tccgcttgcc gcgatccata cagctttcca ggccgccaac tcgagcatgt tatcgttaga 9000  
 cccagtcaga gagcacagca tgctcgacat cgatcatact cgggccattg agctggcaga 9060

attgaagctg gggccagcgt tggagcagaa tccttcccag cctgccaatc cacggcatga 9120  
 taaaatggac aatatgatat ctgaagcggc ggtgagtgtg ataaatgcta tgacgaaaat 9180  
 gatcaacaat catcagcggg gacgtggcca cctgggggaa gacgatataa ccgaacagga 9240  
 tggcgaatta tcagatcgga accgagacat cctgcagaag atcttggtta cggcatcgga 9300  
 gctgctatcg gggagtccag gaccaggaaa tagcaatccc ctcgagaaga ctagtaacag 9360  
 gtcggacagg gcgagctgga gtcaatgtga gttttgtcca gaataaacac gtctgcgcta 9420  
 tgggatgaaa taagtccacg caagacgtta gtcttgata tatctaaaat tgtccttaga 9480  
 aaacacaaaa aacgaggcga agagccatac agctgcacat ttcacaactg tgacaacaaa 9540  
 aaagagataa tcagacggac tttgaggaac acgagcgggt gcaacgtttc gtgtgcatgc 9600  
 aaattttagg cagacgagat tcttacgctt ggcattctca gcgcaatact gattgtcaac 9660  
 ggagagcgca gaccttaaca tgttgatttt gctcggtag acggacagcc cgcattccgg 9720  
 tatgggtttt tgtcgtggta tagtctacct ggcaatggca ttctaactt gaatctgcgc 9780  
 ctcaaacaca ctgatctcca gcacttcaaa tatggtgagc gcattgataa cttgggtttt 9840  
 gccttctgac catgggcatg ttagcagtgc gccaacacac atacacaaca agagtgcgca 9900  
 cgaggagcag aaggcataag atacgggatt gacggtaagg ttggtctggg tgaggttgac 9960  
 taccataatg ggaagtccat tgtgcagcag tgaccgggtg catgaggctg cataagcggg 10020  
 cagaactata acctgatcat ggctcactcg agccatcatg atgcttcaac agctttgaaa 10080  
 cttgaacagt cttatgaaaa gtggacaaat gatcaggaca acgtcgatct aatttcaatt 10140  
 tcttttctct tctttcattg gtccattctt tcattcttcc tttttatctc tctctctctc 10200  
 tctcttctct tattggaaaa agagttggac cagcaatggg aaaaaagctg cgagcacaaa 10260  
 ttgcgctatg tatgaacatt ggctaaagca tggatatgct ggctgtgcgt ggaagctggt 10320  
 ataaagaaaa gtacttgata cctagttagc ataggttagc tgtgtaaata cccctaagca 10380  
 tgtcggcgtc taaaatatgt agcaggaaaa aacatcaatc tgataagtgg actacgggct 10440  
 tgactcatga atgaaggggt atatttcgtg gatagtagac acatacatat actaacaaat 10500  
 tggaatacat tctataccat ataccaatct caccatttca tttcttccca gtcccgggtca 10560  
 gctctcttgc ctccgtctcc aaggcagcga gttgctctaa caaataccgt tagcttaagc 10620  
 aagatgtaaa gccgaagatg agaacacacg gttcttctca accttgacct cctccatctc 10680

caacttcacc caggtccagt atataacctg gtacgtgaag acggcgccca ggaagacctt 10740  
 tgcaaacggg ctggcgaaga ctttgtagcg cgacatctaa catagcaatt cagcgagtca 10800  
 ttcttcctga ttgataagca cggctaaaag atgacttact ccttccttgt aggcaattgt 10860  
 ttctgggttc tgggttggtg gatgcggcgg cataccggtg ttcagtcggg tgccgggtggt 10920  
 tgtaagttt ctgcggaaaa gcgcccagaga gcaattgaag ttgagacgag gaggcattgt 10980  
 aaattaatat actgactgat gaggttaacta ttcaatctaa tgagttctgc ttctattcta 11040  
 tgttttatag agacgaagct attttgatgt tcaagggcgg gctgactcag cgatcacatg 11100  
 atatcaaggg ccccggttca agttccagac ggaggtcaag aacaagcggg gaggaagcga 11160  
 agtcaaaagg cgataagctt agatgcaggg cggaggcgct ggtcaaaaaa caggctgcgt 11220  
 gtttgttctt ttccatcact ctttactctt catccctctg tgaccaaaat cagtcaagcg 11280  
 ggtcggaaag agccgctgaa atgcggcaat tcaactcaga atgacatccg gggcttattt 11340  
 ctgatgtttt acaggtttga tagggatggc gttgtggtgt ttacggtggg ttctgatgtg 11400  
 ctgggtttgc cgtgatctcg gacggatccc agcccaggcc agcccagttg cgattgttcg 11460  
 tggccactag ccgaaaagtt gagaattggg tgggggtcca ggtcttattg cctgagcgct 11520  
 taggcaggaa ctgggcattg gccgcgccgc tagacctatc aggggtctag ttgtggctta 11580  
 tgtgtggctg acgcagcagg acgactgact ccagcctcaa gacttgctcg cagtgggagg 11640  
 tcgggatcgt gacaaagagg gcgctgctaa aagtgattaa ccccatcact cagttagcct 11700  
 attttgattg atgacaataa attgacttta caggcttgtt gaataggtat gcgtgctcat 11760  
 ccatcatttg tttttgttac atctcagttt tgattttcga tgtgctgaca cccgtcgaga 11820  
 ccgagcactc ggactaacta ggctctccac gagacgagcg aagtgccgcc tgccacgac 11880  
 gcgtcttaac gttgtctatt acttccattc ttactccgt tcatttttgc tctcgatccg 11940  
 cggtcggctc gccttgtttt gagtatttgt tgtgcagtgg tcgataatag attccttttg 12000  
 ttcgacgtcg ctcttttgct acaacagctg tccctgcgca ttcgctacaa gtactcaagt 12060  
 gactttactt gctgaaatac tatccattgg ctttgcttt gctggggttc gccgcttttc 12120  
 tagattactt tcggcccttc ttcattgccag cacctcctcg ttaagtactg cgtgtgaagg 12180  
 acaatcgaga tctaactctg gtttttggtg gtgagttact gagcccgtaa cggaattgac 12240  
 ttctcgacca tgttacttta gcgtccgtcc cttgtcgttc tactttgagt tatcttgccg 12300

gtcccccgcg tccgttgcac actgatggca ttcagcagag cccgtgcagc agccatggcc 12360  
cgtatcaaaa gatccctgga agagatcgcg aataaatccg actcagatga tgacgactac 12420  
agcgaccacc ccgttcgtaa cagccggcgt tctgcctcga agtcgaagtc gaggaagaaa 12480  
aaccgtccta cgaagaaaag ggcgcggcgc gattccgatg atgatatagt ctccgatgag 12540  
gacgaaatta gcgaattcga tgacgaattt gacttcgaag ggtcgcccga ggaggaggat 12600  
gttgacgctc cgagaacagc cgggggaaca gtcgcgcgca gggccgccac aaataggcca 12660  
gtctacaacg agggctcaga tagtattgag gatgaggagg aagaagatga agaagacgtt 12720  
gttccctctc cgaagaaggt ggtgaagctg aaagtcaatg cgctgaagcg gcaagcgttc 12780  
tcggataatc ctacaggcac tcggcgtaac actcgacgaa atcgcgatcc gtctgaagac 12840  
atatatgcat tgacgaactc ggggcgccat gttcagacgg tgcaaaaagg cacgcatagt 12900  
ccagaagcag agcgcggtcg ccgctcgctg cgcggtctc agcgcgctcc cgaggctcag 12960  
ggtgaggctg acgaagctga cggaagatg gaggatcccc aggttatcga ggagactttg 13020  
acagagatca agacctcaca gctggagatc caagagagtg cacctaactc tttcagagat 13080  
gacgatggac aagatgcgcc agccgaggat gaaggctttg tgccagaatc tgagaacggt 13140  
gagggaaata cgaaagtaga tgaggatgat gatgatgatg acgacgacga tgagggggcca 13200  
actacaaggc gacggaatag acctaaccgc aaccaaata ctcaagaagc cacacaacaa 13260

<210> 5025  
<211> 5333  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 5025

gagcaccttg ctcaaaccat tttccgagac ctggtttgac aagctagatc agagtctgat 60  
ttatgtggtg ttctgggaag agtggcctac gttgggaatg ggaatgggct ctgtggggtc 120  
acccaggctc tcgagcatgt tcttgatgag aagagaacgt tcggcaacat cgcgggctga 180  
tcgactgtta gctcctcgac atgacagcga cgcttgggag aagcgcaggt ccggaatcac 240  
atacggactt cgatgttctt gccatcgttg ctggtcataa caagcatttt ctcggccatt 300  
ttgaacgact ggagttgcta cagtcgacgt tagtttttgg tgtccgaaat accgaaggta 360  
ggagttgaat tgtgcaagct tggggtcggc tctggtgtta atgaagaggg gtctaaaggc 420

ggggagcgca gttagtaagg gtggttaatta accgatcgca attaggatta taagccagtg 480  
 gatagagatt gaaaatatag attcgtatta tgacagcgaa aataattcgt gtgagcgaga 540  
 cacttgata acggtggtga gtggtataag taggcggcaa gaaagaggcg agaggtgtag 600  
 gttagcaaga tacagactta gtgtcggcga aggcgtccgt cacattatca ctattcccc 660  
 ggttttcact ctctatttat tcccatagcg ctctctcagg caccagtctc agcccatcga 720  
 agatcccttg cctagttctc atctccaagg agtggagagt tctttattca ggggtgttggc 780  
 tgatgacttc cagactattc tagctcagca tgatcatgat tcaaagccga ccgaaataga 840  
 acaccagtgt catactgtat aatcgagagt ttacagatag caagcgcgga tgaatgcggc 900  
 tcttggtct caagcatctc tttcagtctg ttaaagccac tcaacctcga tcccctcaat 960  
 tagtttcacg atcgagtttg gaacagtgtc tctgctttat ccaaataaaa tgagatgaat 1020  
 cgatagtttg tcttagtgat atcattcccc aacgcgtctc tttccactc gctggcctcc 1080  
 ctgaattgca ttccgactat tagtttcttt ttctgctcgg tacctttttc tcgttttggt 1140  
 ttttttttt cccgtaaaat ctttaccgtc gtaatatctc tccttcgaga gtttttcaag 1200  
 acctcttgcc caacgactcg cgtcttgatg tcgcgacgtg atcaaatttg atcggttcca 1260  
 cggcgtcctg attgcagcag catgtgcagt acaagaatta cgctccggat atacctccat 1320  
 ctgtctaata tcccgctctg caacctatcc aaaccatgtg gaggcgaaca tacttgctcc 1380  
 tcttattgat cggggcctac ttcgcgctga gcccagcta catccacccc gacgagcatt 1440  
 ttcagggcct cgaggtcttc gcaggtaaag tctttgtcaa ttaaaccgag ttgtccctgg 1500  
 cttggtgcgg cttgggtcat ttgacgatgc ggcggcgcga ctgattaacc ccacacacca 1560  
 catcactcac accatgcgcc aatactcacc atgttctgct ttgcaatact tacgcagttt 1620  
 ctttcgtagg ccgaatctc tcctatccgt cgcggctacc gtgggagttt acctccgagc 1680  
 gccgatccg cagcgtcttt ccgctgtacc cgatttatgg cgtcccgaata agcctcctga 1740  
 aatggttcta taccgagact gggacggaaa gccaccggc ggagctagta tactatgttg 1800  
 ttcggggggg catgttcttg ctgagcttcg tgctggaaga ctgggccgat gcacgatctg 1860  
 gtgtttctcc cgcgccatcg ccgagtagct ctggtgttgg tggcatcctc atatgtcacc 1920  
 tggactcatc agacgcacac attctcaaac tcgctcgaga cgctgttggt tgcttggggg 1980  
 ctagtcttga tcaaccgtat tattgataac aaggtgcgaa gccggaatct ggagagtgat 2040

gactggctaa tgggtgatag eggcgcctct ctctcttctc ttgcgctatt ctatccttta 2100  
tctgcgtagc aggtatcttt aacaggatca catttccagc cttcctggtc gttccaggac 2160  
tccagttact accgcatttt tggcgcaagt aagttccgtt gcagttgtct ttaggtctgg 2220  
ttgtttacaa tttcccgcgc aggcattat cgttcttttc ccttggttga ttccgtctcg 2280  
tcttcttctg cattgctgtc ttccgcgaca cgacattcta caaacatcg gcacgttcg 2340  
cggatgtctt gcgctcgccg gtaatcacac cacttaataa tctcctctac aacaccgaca 2400  
attccaacct ggctctccat ggacttcac ctcattataa ccacttcta gtcaaccttc 2460  
ctcaacttct tggccctgcg cttgtggcca tggttttgca agcgtacaac agaggcttca 2520  
tagcctcttg gtttaagaac ctccgcgcag cttctgctct atcggcaacc gcaatgctgt 2580  
caatctttcc tcaccaggaa cctcggttct tgataccttg tgtgcctctg ctctcagct 2640  
gccttcaagt ccgcaaatac cgcatacttt taggagcttg ggtcatattt aacgcaacct 2700  
tgggtttctt gatgggtgta taccatcagg gcggcgctgt gtccacacag ctagcagttc 2760  
cgtccgtcat atcaactacc acgtctctgt ggcacgaatc gttgaagggc acacagtctc 2820  
tattcgctac tgtagtatgg tggaagacgt attctccgcc actgtggcta ctaggcgaca 2880  
actctacctt aaatctgaac atcgacaccc gtgacttgat gggcaagccc gggtcagaaa 2940  
tgggtcaaaga gcttgagcgc ttagtcccca cctgcggctc aaagcagaag agcaccgagt 3000  
taacgtcgag cttggaacag cccgatgctg tcttcgtagt cgtcccaaaa tcagtgcctt 3060  
ttcttgacca gttcctgggt ccgcagtctc ctgattcaag tctggaactg cttgagctat 3120  
ggagttacaa gaagcatata agtctagatg acttggaactt tggctccgat ggcgttttgc 3180  
ccaccatgaa gcgcgtgatt ggcagacgtg gattgggagt ctggcttgcg caacgccccg 3240  
ggtgccgcgc cattgacagc taagcttcca gagctatgcc aatccgtact atgtcagtca 3300  
acacagctta tatcaagggt gcggatagct aacacttgca attcaccttg tcatattgct 3360  
gtctatatcc ctgattgacg ccaatctctt ctctatcttc acttctctgt acatgccttg 3420  
ttcttttttc ctttttcttt gaactcgata atattcccgg gtgaattgat taggagatta 3480  
tataatatac ctttcttcc tatctacctt tcttttcgga gtcttcacat tcgtcttaac 3540  
accatttggt tgaaatccat ggcaaataa cctcccgac attctcggat gatattatga 3600  
caatcctatt cactgcgttg agtctttcct acgagatggt tgacttcagg aatccttgaa 3660

ataatatagc gtgctctgcg catttcggcc ttgaccagt cctgctctgt attactgaat 3720  
 ggtattgcac caggattgtg gtgcaaccag cagccttttc atgtagctta gtggttcttt 3780  
 ataatatagg tcacataagc acatgaaaaa ataaaggtgg ctgcttaaata tgtgtcaact 3840  
 gtgtacagag tcgagtcggc gaaagagaat ctgcccaagc atagcttgta caaatagggtt 3900  
 acgaatactg aagcgccgat gttgaatatc tgctcggagt ccagtcgcta cgagaaagaa 3960  
 aaagagacat ataacgtaag ccgaatcgcg gttactcagt atgggagggg gatagattga 4020  
 cagaaaagta gcggcacacc ataattaact aaagtcggat gatagtttca tgcacgtca 4080  
 ccgtcgtcag aattctcaaa caggtagttt gccgcgagct cttcgttctt atcgcaggcg 4140  
 aaataggctt gaataactag gtctcgcgga aatccgagtc ggcagagcta gggctaagtc 4200  
 agctaagaga aaaagaacgg ccaaggaatc gaaagcatac ccgttcgatg gcgtctcgct 4260  
 cctcttccgt aacgtgaatc tgggttggtc ccggaggaag tgcagcatcg tctcttcgc 4320  
 tcaacaattg aaggaaagct tctcgtttt ggccaatgag ctgggcaatc tgggggttac 4380  
 ctgaccaact tgctgaagga taggttccag catctgaggt tgctgttgga ctagctggcg 4440  
 aagttgctgg aaagctggat gattgcgtaa gaagtcgagt gactgggggt cgccaccaga 4500  
 cgcaccgcca gcgcgcgcgc gaccttcacc agctgagca gcagcctcaa agagggtgac 4560  
 cggctcgtct tctccagagg tagcaggtg agctccgcta gcagcggcg cttgaggagc 4620  
 ggcaggggtg gtagcggctg atctttgttg ttgtcctgc tggatatttt ccggaatgcc 4680  
 cttgattgca aaggcagaga tcagtaactg ttacgtgaat tgaaacacga caagactcac 4740  
 attcagcaga tattcaattg cccggtctgg gttgaagaac gccgccctca tagcacgggtt 4800  
 gatttgctcc cgctcaaagc ccagctcat catctggtt attacttctt cactttgcga 4860  
 gccagtcaac agcgtgaag gatcgttgaa agtgctagca gaggactggg cagccccaga 4920  
 tgaagcgggc gaaggggttg ccggaacggg gccagaggtg gctgttgtag atgtgttgt 4980  
 ggacggagcg ggagcaggag ggggcgcggg agttgaagtc actgatttag ctggtgttga 5040  
 cggactttgc gaggacggct gagttttggg ctgaggaatc tcgtagttag tacggttgta 5100  
 tcaaagaaaa acttgaaaag cttatacctt agaaaccatg cacacgataa atcccttttc 5160  
 ctcgatgttg tagaactcaa ccgtcttgtc atcctgaagg atcttcctg caaagttgga 5220  
 aaatacgtca gccatgagta tcgacacgtt gcaagaaacc aattaactaa ccagagtaaa 5280

tgagcttcag cgaaggtaca tcccaccctt tctccgtgga gatcttctct ttc 5333

<210> 5026  
 <211> 2582  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 5026

cttcaacgtc gaatcgctcc ccggatttcg cttgcaccca gtttccatgt agtagggagg 60  
 cttcatgtag cagccctggg gtgtcgagct acgagaaaaa ttagtatcgc ccgcattctc 120  
 acacgggaag gtcgagata atgtcgacc gtgaatggta gtgttcgccc catcatacaa 180  
 gggtatatcg taacttgaca gcaactgttc gtatgcaact gtttgatctg tgtatgaagt 240  
 cagatggaaa gtataatact atacgtctca tgcaagagac caggggcagg cccctttat 300  
 agttacgtg aacccgacca gtagtgctt tcttttcagg gtgcagaaga ccggtctcta 360  
 actttctgtc gcaatagcca ttacgcaatt agcccaactg ttaggagggc tggaatgacg 420  
 gtatgaggaa ctatctgggg cgtcatcttg cagtaggaga tcgtagtgac ctggctagtc 480  
 ctttcccca gtcattcaac aaagtacaat taaactaccg actaagttta tttgtttgat 540  
 aatattcacc gttgaatact catacacagc tcgactgaat tctctatttc cacttataag 600  
 aggtgcaagc gtccagtaaa tggtgtggaa cttgcgttgg aggcgttgca gcccataat 660  
 gcaatccgtc atcctctcca ggggtggcaat gaaatttgag atgccaacag atttgttgaa 720  
 tgggacgcag gattgtttgg gaccgagagg agaaggactg gtttgatggg cttcgatgtc 780  
 gtcggtcct tctttctag atagccgatg ctatgagcag tcatactgga gtgaacagat 840  
 ctacgggaga tgctaagaag acctggtgga cttggacagg cggcgatagc gaataagccc 900  
 cttctccctg tggtcgtgg ccctaaaaac aagcttaacc tttaggggat gttaactccc 960  
 ggctagccct aaccttagcg gtcaggcccc atggctggcc cggttatact taacgttagc 1020  
 gatcaggagg cgcctttcga taacatctc gtatctgcgt ggccaacagg cccgacctag 1080  
 tcggtcagcc aagggccacc cacattcttc tccaaggctg ccgatctacg gcaattccag 1140  
 gtctatttaa gggtcgccgt cgatcctcaa gattatctcc ggacgctgtt cacatgagca 1200  
 aacacacatt tcgcgtttct ctacaatgac tggcaagatg catcctttcg accctctctc 1260  
 cccagaggag atctccaagg tttgtccgtg ccatcatcgt cagaccaacc tcgttgctag 1320

ttatTTTTgc taattatgca aggctgCGac cattgttCGt ggacaattCC ctgggcaatC 1380  
 gccagcgttt cgtttcatca cGctcaaaga gccatcaaag caggagatga tGcccttCct 1440  
 agagagtGag catcgtggca tcccagcagc gaaacggcct gctcgtgttt ctCGcgtcca 1500  
 agtagttctg cGaggaaacg atggagccaa ccagctccga gaacttctga tagatctgga 1560  
 ctCGacaggt gtactcaaga aCGaccatct agtaggcagg cactcttata tCGactcaga 1620  
 ctacatgaga ctCGtcgaat cCGcttGtct gGcgGatcaa cGagtccagg acgagattaa 1680  
 gaagctcaag ttGccgccta gctCGactgt tatcgttgaa cCGtgGgcgt atggaacgga 1740  
 tggcacatat gacgggttgg agcGagttac aatggtgCGt tcaacaaatC ccatatattC 1800  
 ctctctatgg tctgaaatTT tgacttcttc tgacttctgt ccagtGctgg ttctacttac 1860  
 gCcttctcga caatccggat gCGaactact atGcctatcc cctggatttg tGcgCagagg 1920  
 tGtctgagca gctaaaggTC atcaaaatct actatctacc atcagcccaa aatgaccgaa 1980  
 taactgacca agcGcgaccg tttgatatca agaaaatcca ctctacagca gaaagcGagt 2040  
 accatccaag cttgCGtccc cctccccgga acacgacaaa gCctaccag gtggtccagc 2100  
 cGgaacgcCG tCctttacca tCaagggtaa ccacatctCG tgggagaagt ggacaatgcg 2160  
 cGtaggattt aactaccggg agggctctgac gctccacgac atccGctatg atggacgcag 2220  
 cttattctac cgtctctctc tGtccgagat gtttGtacc tacggagacc cGcGctCGcc 2280  
 ttatcctCGc aaggetGcat ttgacctagg aagtGacggg gctggcatca atGCCaaca 2340  
 ccttCGccta ggatgtgact gCctaggcct gattaaatac tttgatggtt gGcacaacac 2400  
 ttcttctggg gagccactga agctccctaa tGtCGtctGc tGccacgagc aggacgacgg 2460  
 cattctttgg aaacacacca acttccgcac acagaacgcc gtcgtgacgc gtgcacgcga 2520  
 tCctggtgtt gCagacaatC atcaccgtca gCaactatga atatatcttt gGcttccagt 2580  
 tt 2582

<210> 5027  
 <211> 5727  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5027

ggcttgcaaa gagaatTTTT cGaccctc ttcGcttat cGataacaat cGccgagaac 60

cctccccccc catgagcctt tcccttgaac aatgagcata cacttaccca tgagttaatt 120  
gcagatcctc tctggtaaag ggggagttgg caagtcgtca gtcaccctcc agctcgccct 180  
agctctcacc ttacaaggca aatctgttgg agtcctcgac atcgacctaa cagggccctc 240  
tatcccacgt ctcgtcggtc ttgaaggcgc aaagatcaca caatcctcga acgggtgggt 300  
tctgtacca gtacatgaag ctgaggccca aacagcttca ggtaacgatg ctgcggttgc 360  
gctttcagac gatggtggag atgagaataa ggacgtagaa cgtgcaaagc caagaggaag 420  
cctccgttgc atgtcgctcg gctttctcct ccgcgaccgc ggtgacgctg ttatctggcg 480  
cggacccaag aagacagcaa tgatccgaca attccttaca gatgtctact ggggtgacac 540  
cgattacctg cttgtcgaca cgccgccagg gacaagcgac gagcatattg cgcttgacaga 600  
ggaactgctg aaattgtcaa ccacgagccc atcttctacc ggtgtcgggtg cgctcccccg 660  
cctcacaggc gccgtcctcg tcaaacaccc ccaagcaatc gcgacttcgg acgtgcgcaa 720  
ggaggtgaat ttctgcgtca agacgaatat acctactttg ggtgttatag aaaacatgtc 780  
cggttacacg tgtccgtggt gccggggaggt gagtaatctg ttttcgagtg ggggtgggca 840  
aggtgatggc gcggcacatg ggagtaaggt ttctggggaa ggttctctgt gatgtgcagt 900  
ttggcgcttt ggtagagggg aagagtcagg aggaaagcga tgatgaggat gaagatcggg 960  
aacggaacaa agtggagag gagaaagggc aggattttgt tgacgagcga ccgctggtgg 1020  
agaggtacaa ggaatgctgg tcgtatgggc agtttgaggg ttttgctaag acgctgatag 1080  
gggagattga gggttgatat acatgagtga cggagttaaa aggtgaaagt cggttatttc 1140  
ataaaatgat aagcatcgtg tcatggagat ctcatgagag gtggaaacat tcatagatct 1200  
caataaaaat atcgctaate aacagtatcg ctaaagcaaa cttggccgca agatctgatt 1260  
atatactcat cgtgtcctat aacagaaaca gaagatagtc cccgcccggg aagggtatta 1320  
aaatagcaac tcgtgcactg aacttgatc aagaagacac tggctcactc tgcgtctcaa 1380  
gagtcgcccg cagtcgactt tcagctgact gttgctcgat gctgcagccg tcgctccatg 1440  
cagcttgttt cagccagcgg aagagtgact gcacatcgga cgacttgccg cagtctgtcc 1500  
actggctcga taggtctgcc tgggacagct ggccgggaag atggtcagat ttcagacggc 1560  
cattggcttg ggcacgaga aggatctccg atactagagc cggagtgagg atattttgaa 1620  
ctcggtcatt gtctctttca gctatcccta acaacgcccg tccgccagct ttgggttttg 1680

atgcaaactc gcgcttagta ggaagctggc cggtcgattg atggctctaga tgatcgttcg 1740  
taggtacagg ctgcgagggg gcggtgatgg gaggaagaag ggcgtcgaag aaggtgtaat 1800  
ttgagaatgg agtgtgggtcc ctgccgtcga caggattgtc atcatcataa ataaccacat 1860  
tatcgccaga gtgttccctca tgaacagagc tggcctcttc aacagtaaca agccccccag 1920  
gcggcgcacg aatctcgctt agaggcgcaa tatgactgcc atactcgttg gcgagactga 1980  
gcttgctacg accgcagatc tccccgattg agtcgagcgt gctgcgaata ttcggctcga 2040  
tcgcacgaag gatgccgtca atactgaact cttcgccagc cgggagctcg ggctcgggct 2100  
cgcgtcgttg ctgattgttg ggggccctcg agaatagaaa tgaccgccgt gcaggcatct 2160  
tggatggatc ggagttatca ttaggatctc ccgagtaaga tctgacaaga acgggctgcg 2220  
aagctaagct cgaagacttg ctgctgctag gattataggc tgctgcttgg cgcgtcttcc 2280  
aggacaaggg cttgggagcg ctggtgccgt gaagatggcg taacgcagat atgcgataag 2340  
cgcaagcagt ctcatctagg gattcatatc gacagggatt cgggctgggtg ttcgcttgcc 2400  
gcaagaaacc agcggtttca ggggaggaca acgaagaaga agagggcgca gtggcgtgct 2460  
gctgcgacct ctgccgtgga gacgaagagg atagtggctg tcgcattgca tcgaagtggg 2520  
aggacaacct gccagatggc gtgcgatcca tttccatcag aggaggcggc cagttgctat 2580  
cacaatacgg ccgtagtggg tgcgtctgta gctccaaacg agaatgtatc cagctcttgg 2640  
tgacgcagcg ggaaaagaca cgagcgggaa acgacaacgg tcaccacggg cttagcatga 2700  
aaccgccgtt ctcaggtaga acgattactg tcgggccaca aacactgaga cagacacgta 2760  
ggggcagtc agcacattgc atagagaaac acaggctgca cgagctgagg cgggtgcaga 2820  
caagctggcg tgcacgggat aagcataatc ggccttgctg ggacacctgt cgtgctcctg 2880  
attgaggcgg gaagatgcag gcatgggacg aggatgagtt ggcaggaata tcttactcgg 2940  
gtctggagaa tactccgcag tcattgctct gccttgctta tctaccggta cctagttggt 3000  
agcgcagacg atggccagac ccatccaact ccacaccgc acccctctca agcattattc 3060  
cactacgttt gacacttctc gctcacatgc agcgtattgt gcctaagtgc ctccgccaca 3120  
tgctcattaa tcttgctgac aacttgatg gccgccaaaa tgaacaagtt tcgcgtacgc 3180  
accgctatct gtctatcctt gttggcttcc agcaccagtc agctgacatc aatgaatccc 3240  
tagttcggtg actctgatga atcgccatca gacgacgata cctccagtct tccattcccc 3300

gagcccttgt cccgatcttc gtttcttgct ccagacttcg atccagcgac gtatctctcc 3360  
 tccctgacca accgtcacca gagtctcgag gacctgcgcc aggaattacg caatctagac 3420  
 caattgctca gccgcgaact attggatctg gtcaatgaga actaccagga ctttctgtca 3480  
 ttaggtagtg cgcttgaggg aggagaggag aaagttgagc aagttcgcggt cggacttctc 3540  
 gcgtttcaac gcgatgtcca gtcaatcagg gataaagtcg aggcgaggca gaggggaagtc 3600  
 gcgggattgt tgaacgaaaa gaagcggctg agggcaaattg cgaacattgg gtgtgcgctg 3660  
 ctggaatttg cggatcggat tgaggagttag gaaaagagat taatgatagg ggagcaaacg 3720  
 ccacaggaga agccggcgga gctgtctgat acagattcgg atttcctgga gagtgaagac 3780  
 gaggacgaga cggaggatga agatcgcggc gacaatgcac ctccgcttgt ctcgctcaaa 3840  
 cggcttgagc gccatctaca gaagtatggt tatctcacga gactctcgtc ccgcgttgga 3900  
 gacgaacatc cgttcctact cgcgcagcag cagcgcattg cgaaaattcg ctcggcgtta 3960  
 ctcttagatt tgagaaaggc acttgaagaa acgaagcaag cgcgagagaa gcgggacacc 4020  
 aaaacgctgg ccgttttgcg tctatacaaa ctcatggggg aggatacgag tgctgtgtcc 4080  
 gccctaaaag acttgactat atagaattgc gtttggtatt gcatagcgcc ggcgttgaga 4140  
 gtatatgctt gaaccattcc cattataata caccgtaccc ttccctaataa aacatgttct 4200  
 gtacagcatg atcgagacta gtttacggac cggtaacaa ggcaggatcc acagagttct 4260  
 cggctctgaa ctctccattc agactgaagc caggaccgtg ggttgagctc agcacctgca 4320  
 gtcgatcagt aatagccaga cagtgttgat atttcgcac ttacaacttc gtagatttct 4380  
 tttgtgattc ggtcgttgag gctagcagca tcctttttca cttgatcaat ggtaacacga 4440  
 aggttgctcc gtagttgctc tggagaaaat ccagctggc cgatggggag acggaccaca 4500  
 gcgtcacgct ccctgtacac cgtacctcca cgaagcattt cgacacgagc agccacatct 4560  
 tcgacaacgg taccggtctt cgcactaggc atcagacccc ggggaccgag aatccttccc 4620  
 agcccagcct tagctaacgc gggcatactg tcgggatgag caaggcaacg atcgaattca 4680  
 atccttccgc tcttcacgac ttcaaatact tcctctctc ccactagcac cgctcctgct 4740  
 gcaagtgcgt ccttcgcatg ttttgagcca ggccgacaga tcacgcaaatt tcgtgattcg 4800  
 gtttgagcgg agtgagggaa tcggatcatg ttgcggatga cagggccgtc tcgccgggtt 4860  
 ttcagtcgga tgtgaacttc atatttggt accgctggct cccgcccgcac ttcgaatgct 4920

cgaaggtacc tggcattgag atgtgttttag agagtgtctgc agcaagggtcc ggaaggacta 4980  
 gaatatacct catcgcatca cagagtgcga actgctccac atctttcagg tccttctgtt 5040  
 tgaactcacg agggcccttt ttactctttg cagacttagc agccttatct ctcttccttc 5100  
 gctccgtctgc ctgcttggtc ctgcagtcg cggctccccg agcctgagcc tgttgatacc 5160  
 cgaaaaacag gggcgccgcc attgaccctc gtcgaatgga aggccgacat attgacagta 5220  
 atgccctcgc cccggtgggc atcagcgcgc tgaatgagga catggtttcg gccccgtatg 5280  
 gatgtgtaat gcttccatgt ccagcaattg ttttcgcgcg aagctttgcg ctggccggag 5340  
 acggggcgga agaacgtagc tccggccgcg tctttttttt tgagtcaagc catcaaagcc 5400  
 ccgccattta ttgcttttag agtcattctt ttctgtctgg agtctgttcg gggaaatcgc 5460  
 tgcaatatgt ctcaattcca gctgaatttg gctaccaagg ccaaccaagc tgctttgctg 5520  
 cccatcctgc tcgttgcaac ttctgtcaac gaagccccgac ctgccccagt tattaccatc 5580  
 aattatgaag atgccacagt tctccgcgcg ggcgacaagg agattgtcga gtttaccgct 5640  
 gcaacggcac actagtctac ggatctgctg ccttcaagga gcttcttctc agcttccctt 5700  
 atctgaacag caaggaagag aagctgg 5727

<210> 5028  
 <211> 4345  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5028

cggcaagagt gggaagcagg ggattgtacc tgtcgatata tattagcaca ttgattcgca 60  
 tgaggctgtg tcggccggat agtgaggtag atcattcccc aaatcatctt ttcgtaatcc 120  
 tcacacatgg ggatgtggtc cagccccgct gcaatctcga taatctccg ccttttcgct 180  
 gggcgggcca ttgtgctaca ctgagtgtgg ggtatgaatg ggtttgaggt tggacttgaa 240  
 ttaggagtct gaatcggagt cagtatttag ttcgctcagt catgggtatc taataggtat 300  
 ggattacaaa gacttaagat aggaaggctc tgatgtctgg aattgactcg cgtaatatca 360  
 aggcgagggt gaatgtcatt gttgaagatc ctctgcgcc aacttggaat ataggcttgg 420  
 gctaagatga gactatacca gtttaggcta gttcaggcgc tgcagccaa taattcgctg 480  
 tgtctatagt acgcgatctt ctcccattta tcgagtctgt agcattgagt gagggtaggg 540

attggcttga cgagacatat ctgcgcaatt tagtcccaat agtctcttca atgcctacat 600  
 gatctgctat cattccatcg gtcccttgcg gatttgctgt acctttattc ctcagaagta 660  
 aatcttggcc caggaatcga actcaggtga atggcgagcc aaagggattg ctcttcactt 720  
 gcctcacagt tcatggtgta gacaatggcg aaacactaag agccccaata taggtcttac 780  
 tggttcacat acggacaggt atatgtggaa aaggacagtc tgagcaaattg agggttgaag 840  
 tttatggagg agtgtcaacg acgtgagaca ctctgggctc cactcagagc ctggaagcca 900  
 cgctgcatag tggcagaatg gatggaaaag atgtgaaaga caaataacga cgagtctccg 960  
 ggccactcac gttaaactcc gatatcccat ataatagaat caccacgcaa ccataatact 1020  
 cctcgttttc cacgggccat tcactccttc aggcttcata taaagcacag cctgtgtcgg 1080  
 attggccttg atttccttca gctgaacaac ttcatacacc cttgccaatg ggccgatgtc 1140  
 cttttcgctc gtcggtggct ccggacactg actttcctca acttcgacaa cgactttcgt 1200  
 aacctgcgca caaagtcgtg cattccacat tccttcgcgc ttggagtgtt ggaagagaat 1260  
 attgagggcg cgccggcgga ggaaggggtt gcggcagcgg acggcgggcgt agtacatggg 1320  
 tgcgattatt ccgccctcta gtgagaaggc tgattcagcg tctttcactc ttgctttctc 1380  
 cgcgctcgc gtgggcgagg aaaggcgaag gatttcctcc gcgttgata taagcgactc 1440  
 gaaatccgcy gtgaaattat cgtgtccgtt ttcgtctcgg tccaacgca cacagacca 1500  
 tagcaaggca gcctggtaat atatacgag taaaaggag gcgcggaggt ctgactgttg 1560  
 gatttccagc ccgtgtctgt cgaggagttt atcgtgggac catcgccaag acagcagttc 1620  
 ctcacaaatc tggtcgcgtt ctgcttcgaa ctgggcctgt accaccggcg gtcgttcttc 1680  
 gcgcaagatg ccgacggagc ggatgaagcg gagggccttt gtcacagac gatcgagatg 1740  
 ggaccttgct tcggtcaggt cagtaaagat gtgtccattt ctggtgcctg gtgagtcac 1800  
 gtttattggg accagcaggc ggcccatgaa ggatgcttga aggttaagtc gaaggaaaag 1860  
 gtcgcggagt tgttgataca gctcgtcgtt acaaccagaa ccaattgatg ttaattgctc 1920  
 atgcttgtgg ataattcgta gtcctgcctc tatatgatct agtgcttctt tccggttttc 1980  
 tcgtaacatc tccaggcaga taaacagaca acatgtcgtc aacgccaaat tgatactccc 2040  
 tccttgactg tgtgcagtga gagacttgac cagagtctgg attgacttgt tatactcctc 2100  
 cagcacgaac tgctctgtcg gcgtgaccc atttaccgtc agaaccgcgc tcccagctac 2160

tgcactaagc tggaaccggt catggagcgc gccgatagca gtcatagcat gtctcacgct 2220  
 gggctcgtgc tccgcaaact gtggtataag gtacgaccag agcttgctat catagaatcc 2280  
 tgcaaacgca tgcgagggtcc gcgtgtagaa gaagtcgata tagcgcctct ctgttctcgt 2340  
 tccttgccgt agaacgagtc gatggtcgcg cccaagagtg tctcgattaa gtggcttctg 2400  
 acgctcggca atgcgcgcgc gaagttgagt ttgcgaggcg ttatcgtaac cgtcgcattt 2460  
 gcggccggat ttttggcatt ggttgcagaa gggcttgacc tcgtcgcatt tcacatgtcg 2520  
 gattctaagc atggcttagt actcttgttt tcggcgatat agatggccag gatcgtaact 2580  
 gcaagtgata cagccattgc gtgatcgagg tcgcgttata gtccctggttg tagacattct 2640  
 tgtatccttc tttgcagagc aaaggcgcaa aaagaatgga aaattgatgt attccaagct 2700  
 ttatcttcag ctcgatatgt gcgcaaggag taggtattaa tatgatttgg ttttagtttc 2760  
 ggccccgaca cgcaatctcg tggtgagcc gcagggcctg gcttctccag caaatcgccc 2820  
 ttcgtgcctc gtttcttggg aatgctgggg gcctagccag gattctcaat cagtcagagt 2880  
 gcaaataacg tggtcagggg aacgtgatcg accgttgatg aaggaagtct agcccagcca 2940  
 cagtgaagg ctagttaaac ttccttggcg gtcggtggcc ctaatccatc aatcttagaa 3000  
 aatgtgctaa aggagcgcca gcaaagaacc gcatatatag aggaaatggg tatgacacag 3060  
 ccagtatacc tgaattagtc cggctacca ttaccacgcc acagaccctg tcgagaccag 3120  
 cggggacatg cggtatttcc tcgactaccg caatgactcg ttatgaagac atcaggcggc 3180  
 tttagggtcg acgatgaagt gaaacctttc tcccgcccca gtgatcccag cccatgctac 3240  
 tgatgcccgc tatagtacca agaggagcac caagagaaac accaggagga acaccaaaca 3300  
 cctgttccta ctgctgcctt tgtgacttga agaactagc agattgctgt ggggcggctt 3360  
 cattgctagg aggatgatct gttcaatgcg tctggactct gaatctgtaa acacaaccgc 3420  
 tggattggca ctaaaacatc gtgccccgac aatgcttccg gtcaggtct agtaaaccgg 3480  
 tcgccgctgt acgcctatct gcgtcctttc ttccaaagac agtatagcag cagtattgca 3540  
 agacacctta gaagctcgag ttgatgatga aaggcgacgt cgtgggtcaa cgtcctctat 3600  
 atttactcgc tagcgtattc aaccacgggt tagtcgattc acggcgccaa aaaagataac 3660  
 acatggtaga attgaattac cttgcgctca cgcgtcgaca ttggctttag ctgccgatct 3720  
 ccgaagcttt aggcgctgtc ggttcggagt atcttccaag gcagccagtg gctcacctca 3780

gccgcagcga aggaaattcg tcagagagtc gggattcggtt gacagatggc tgacgccaaag 3840  
 gccgactccc ggacttatcg acatcgacag tatctccggc tgagtaggta gtcccctggt 3900  
 cagcatgaat agcacaggga tcatctataa aggtcgattg cctctgatta tcgacttcac 3960  
 tcctacctga tgcgagaaat acaagatagc gagaaatata agataactga agcgaaatgc 4020  
 gtcttatcct cactgggtgcc acaggcggtt tgggtccgc agccctcaac cacatcctca 4080  
 gcctccctgc gggcgagatt tcagcgctgt acatcatcag ccgcagtgca gtgccggccg 4140  
 cagaaaacaa acccaatgtc actgtcatcc agcacacgaa ctataacgag taccgcgagg 4200  
 agctgttga caagctgaag ggggaggatg ggtgtatctg ggcgcaggga atatcgcaga 4260  
 cgttggttac gaaggagtga gctataccct tcacgaatat tgagctacag tgcggtctaa 4320  
 catcgcacag ggagtatatc aaaat 4345

<210> 5029  
 <211> 7690  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <223> unsure at all n locations  
 <400> 5029

atcttcgcga cgagtgggtgc gatgcagcca tcgtcgagg tacgaatctg attattacgc 60  
 cgactcagac catcgcgag agtgaggcag gagtccgtgc gccaacgggc gagtgccgaa 120  
 cattcgacgc gtcagccata tgtacgccc tggggaagcc atcaacgccca ttctgatcaa 180  
 gaggtggggc gatgctgtac gagatcaaga tccaattagg gctgttatcc gatcgacggc 240  
 cgtgaattgt gacgggcaga ggcgaggcat cagtgcaccg aatcccgag cccatgagag 300  
 aatgatccgg cgagcctaca agtttgcggc gcttaatgac gccctagaga cgccttggtg 360  
 agagtgccat ggcaccggca ccccgagg agatccgctg tgaactgcaa gcgattgcc 420  
 gcgtgttcgg agggatccag gacacgtatg tggggagcat caaggccaat gtagcccatg 480  
 cagagggggc gtcggggatc aacagcgtca tcaaagccgt cttaatgctt gagaaccgag 540  
 tcatccctcc acaggtgaac ttcgctgtcc cgaatccagc aattccgttc gaggcggaag 600  
 catctggtgg tgccctacaga gccaacgccg tggccgaccg gtcgaccaga gcgtatcagt 660  
 gtcaactcct ttggcataac tgggtgcaat gcgcatgcga ttattgaatc tgccgcatct 720  
 tacggcggtg ttcgaccgtg ctggaatgga tcctccgtcc cgaaactgct gatgttctct 780

gcaaagacca ctggcgccct caagagccga gcagcgaga tcagaaggta cgctgatgcc 840  
taccctgaca gggcaaacgc tctgtcatat aactgggct gtcgaaggtc ccaccttggc 900  
catcgcgccct tctgtctcgc gggagcgaac gaggtcactt acatggccga gagggatcaag 960  
cagaccccg tcatcaactt cgtctttacg ggccaagggt cgcaatggcc gaggatgggc 1020  
aaggagctca tggaggagtt cccgcagttc aagaacgacc ttgtccatat gagcaagatt 1080  
ctggctgggt taccacaccc gccggcctgg gacattgtgg agggagtgc tgcagccgat 1140  
gacagagagt cgtgtcaatg gccctgaatt tcccagccg ctatgcaccg ccattcaggt 1200  
tgcactggtc aatctgttgg acgtacttgg cgtctcgccc gcgaccgttgc tgggtcattc 1260  
cagcggagag atatcgccgg catagctgc cggcgcactc acagtggaag aagccattgt 1320  
cgccgcgtac tatcgagggc gagtagcaac cgaatcgctc cgcactgggg ccattggcagc 1380  
cgtcggaatg ggtcgtgccg aggtctcgt ctacctggag gatggcgtg tegtgtcatg 1440  
cgacaacagc cctaacagcg tgacactatc gggcgacaag gaagctctcg gttcagtcac 1500  
ggagcagatg aaaagtgatg ataagaatct ttttatccgt ctgatcaaga cgggcgggtct 1560  
ggcgtatcac tcgcaccaca tgctgaacct aggggtctagg tatgagcaat gtttacagcc 1620  
gtttgtcagg gccattctg ccagactccc tttcttctcc agcgttaccg gcaaaaggct 1680  
ggctgaagag gcgttactgg atgcacggta ctggagacag aacctagagt cgccgggtcaa 1740  
gttctatccc gctgtcaggg ctctgatcgc cagccaacag cctgcagacc agctctttct 1800  
cgaaattgga cccattcag cacttggggg acccctgcgg cagattttca aggtacaaa 1860  
gacaaaaggc cgtctagctt actcacatag cttggtcagg ggcaggaatg ccgttgaaag 1920  
cgactggaa atgtgcgggc agctattctt gcagacagtt gatatccgta tggagcagtg 1980  
gacctatgga ggtagcacat tgacggacat ccagcctat ccattggcagc acgaatcatc 2040  
tactgggtcc gaaactcggg ctgtgaggga gtggatgtt ttgcatctgt ctacacatat 2100  
cagttcgtaa gcatttaacc agatctctag gaggactcga gcctttccgc cccatgagct 2160  
gctgggctca cggatcctgg aaggaagcga tgtctagccc atctggcgca acctgctccg 2220  
tttaaaggat gcgccttggc ttagtgatca cagagtgtg caggatgtcg tatttccttg 2280  
cgctggatac attgcaatgg tgggcgaagc tattcgacaa attacgcatt gcgacgactt 2340  
cagtatccgc catctgagca tcagtacagc gatgatactg ggcgatgaga agactgtcga 2400

ggtgatgacc tcaactgagac cttcaaggcg gatgtcgacc cagtgggtacg agttcgccat 2460  
 ctactcgtat aacgggaaca cctggacaac acattgcatg gggcaggcga aaggaggtag 2520  
 ggacgacaag gcagtggact tgcaaatgcc tggactctat acccagctcc cccgtcaggt 2580  
 ccagtcccca tatcctatct ttacgcgcgc tggccttcac tacgggtccag cattccaggg 2640  
 gctggaaaagc gtttgcgcaa ggcctgggtca tagaacagcc acggcgctgc ttcgggttcc 2700  
 tccagagaca ggctcagtggt atccccctgca tccaacgact atcgatcagt gcttgcaact 2760  
 gctcgggcta gcctccgcag agggccttgc ccatcacttc gagcagattc ttctgccaac 2820  
 aatggtagaa agcctgtata ttcagggggc ccttgacgct gcggcgccca tgcagacagg 2880  
 agcaagagcc gtcttgactg cggacaactc tggcaatttt caaggagaga tggctgtcgt 2940  
 ttcaggcgac caggtcttgc tctccgcaca tggatgcaaa ctttctccgc ttgagaacga 3000  
 acgggcgggc ctgtcgaggg acgacagaat agcagcagct cggctgtact ggaggccgga 3060  
 tctcgacttt atccctctcg agagcctgat gagttctcat acgaaggatc tcggtgcact 3120  
 acagctgatg gagacttacg tcttctatg caccgtcgag atccagcatc gaatccgcaa 3180  
 tcgtgcaccg tacaatggcc actttggcaa gtttcatcat tggattgatg agtgcgttga 3240  
 tcaagggcga cggggagaga accaaatcgt ggctggcagc ggcgaactgg tgaaaacttca 3300  
 accaaaacgag cgcattggctc ttatccgcca gctgcgaggc aaaatcgccg actccgagtt 3360  
 tggcaatgtc gcagagcttg tcagccggct cctggacaat tgtgtggagg tcttcaaggg 3420  
 ggaaacagaa attctggatg tttacttacg agatggcgggt ctcacagagc tctacgccat 3480  
 cacgggagat agaattgatt ccaccaggtt tttcatcaca gcaggccata caaatcctac 3540  
 gatgcgcggt ctagagattg gcgctggaac ggggggaacc accctggtgg cattgcaggc 3600  
 tctcacatct atcaatggag agcccatgta tgccagatac acgcaagtcc agccattct 3660  
 tacgtgctaa acctctggct tctgactgaa cagaaaatag attcaccgac gtctcgtctg 3720  
 gcttcttctc cgtgcccaga gagagggttc cgaataccc tgggctcgaa taccggactt 3780  
 tggatattgg aaaggaccgc ttagagcagg gattcgatgc tggcagttac gatctgatca 3840  
 tcgcctctaa tgtcattcat gctaccgaaa ccctaaacgt gaccctgaaa aacgtccgca 3900  
 agctgcttca tccacgaggg aggttctttc tccaggagct gacgccttct gctgcaaaaa 3960  
 tgattaatct tatcatgggc ccgttgcccg gttggtggct tggagaggct gatggccgag 4020

caaccgaacc tattgtatct cctcagecgt gggatctcga gctgcgtgcg gcaggattct 4080  
 ctggtattga gtgtctggtc cacgatgatg ataatcagag ggaccatctt ggcgtaaca 4140  
 tcatcgaaa gctgtccgg cctgccccag attttccctg cgtcactctg ctgctccgtg 4200  
 agagccacga tgatctgaac tcggtcaagt tggcgaagca ggcgttgagc gacaaggggt 4260  
 atcatatcga cgtatgctcc ctgggcgccc aactccccgt tcaccaagac attatctcgc 4320  
 tgggtggagat tgactctccc ttcttcgaac cagactgccc gggcagcatt gcggtcctgc 4380  
 aaagaatagt ttctcagctt gggatcatcga aactgctctg ggtgacgggg tccgctcaga 4440  
 tgggaccggt ggacaaccca ttctacggcc tcacgctcgg cctcgcaagg gcgatccgag 4500  
 cagagctgtc gccttctctc gcgactgtgg aagttgacag gctggatcca aagtctgcag 4560  
 aaacaattgt ggaggtgttt gaaaagttcc aggatacggc ctctccgtg aatccagaca 4620  
 acgagtatgt agtcaaggac ggcgttgtcc atatcggtag gtatcactgg acgcagatct 4680  
 caggcgagct tgcacaatct catgacacgt ccggtcaccc tctcagactg gagaccaggc 4740  
 gagaggcagg tgcgaaagtc ctaggctggg cttcacagac acccatcccg ttggggccaa 4800  
 acgatgtatc catatgcccg gcctacgtag gcgtcggcct caaggtagct tgtttacatg 4860  
 cctatctcgg atagtgttg cttgcagcca ctaatcctcc tcctaggact acgacagcct 4920  
 ggtcggattg agggttccgg cacggctgcg gccattggag ctgaagtaca acggctcaaa 4980  
 gtaggggatc aagtaatgtt cctcaaggac gactgtctcg caacaagcat tacagccgct 5040  
 gcagatcaac gagcatagat cccagacgcg ttgagccttg ccgacgctgc cagtatgcct 5100  
 tgggcatact gcaccgctat ctactctctg agcattgtgg gcaatgtccg aaaagggcag 5160  
 acaatcctca ttcatagaagc gacaagctcc attggtttag ccgctattat tctgtgtcaa 5220  
 atgcttggtc tcgagatata ttgcactgtc accagcccta atcaagcggg acacatcacc 5280  
 accgctttca acattgcttc cagccacata tttgccttg gcgatgcgtc ttttcaatct 5340  
 aacttgatgg ctgcgactag aaaccgaggt gtggacaacg tactcctcaa cttgccgtcg 5400  
 gtggatgtgt tgcaggcctc gtggaaatgc gtggcctcac gaggaaagggt aaggacttgc 5460  
 atctgttctc cgcaatggac gtccgattga tggctaata ttgtctagct aatcacacta 5520  
 gcaaagccgg ggctttatga tcgtgcagag ttggatttgg accttttgaa gggcaatagg 5580  
 agcttcgctt tgggtgacat tacctccctt cagcagctat atcaagagta tgcgcccagt 5640

tcccccttcca tcccacggaa acgccacttt tgtgtagctc taatatactc gctaggctcc 5700  
 tcgatgagac aatccatctc tatactcacg gccatatcaa acctattacg ccaaactcca 5760  
 ttgtcgggtgc cgaccaactt caggatttac ttgcagttgt gaaccaaagc aagtcattag 5820  
 gcacgactgt ggttgtagtc ccagatgcag ccaacgcact cccagtacac acagcccacc 5880  
 ctgagcttaa gctgcgacca gatagagcat accttctagt gggaggttta ggaggactcg 5940  
 gccaatccgt ctcaacgtat ctggtcgaac ggggcgcccg gcatctcgtc tatctgtctc 6000  
 ggaatgcggg tgcgcacgaa cgccaccgac aatttattca ggagcttgaa agccaagggg 6060  
 gttctgtaca ggcagttcaa ggggatgttg ccaaactggc ggacgtgaaa acagcagtgg 6120  
 aagcggctag ccagccaatt gccgggtgtgc tgcaaaggc catggttctg aatgatcgcc 6180  
 cttttctgag tatgtttcac gacgactggg gactgcaat tcggcccaaa gtcgacggga 6240  
 catacaacct gcacaaagcg ctgctggatg cagatacaac ccttgacttc ttcgtggttt 6300  
 tcggatccgt ctctggcgca ttcgggatcg cccaccaggc caattacgcg gcagcaaata 6360  
 cattccaaga ttcatttgtg cagtaccgcc acgcgcatgg ccttcttgca tctattttga 6420  
 acatcgggtgc catggcgaat gtcggctaag tgagcgaaaa tcacgccgtc gaggaattct 6480  
 tccgcgctgc cggcatgccg tttctatccg agggagactt ctttgaagca ctccaccatt 6540  
 cgatccgtca ccaatttact gctgtctctt tggcgcagtc aaggatcatca gctacggcgc 6600  
 acggtcgagg cgcaggtgcg accaacgttg cccagctcgc cctaggcatt cggctctacca 6660  
 aaccgatgga tgatcccagc aaccgcgtgc tctggaaaca tgaccggcga gtggacatat 6720  
 accggaacat tgaagccgca cggctgcagg acagcacgga tggcagggac gggggcgagg 6780  
 aagacaaaact cgctgcgttc atgactgagc tgcggtccag cccgtccgtg ctggatcgag 6840  
 cggacacctt ggccttctct acgcatgaga ttggcgtcaa gatctacgag tttatgttgc 6900  
 agccggtgga agagcttgac gtaaccaaag gcttggtcac ccttggcgtg gactccctgg 6960  
 ttatcgttga gattaggaac tggctgcggc gcaaattgga agtcgaaacc agtacactgg 7020  
 agatattgaa tggcggcact atcgagactt tgggacagat ctgtttccat agattgcgcg 7080  
 gaaaatatgg aggatcggct ccggggaggt gaaggtataa tcatagtgac aacaaaacat 7140  
 agcggatcac aattactttt attcccatag gagctcagga aaaagaactg ctatagacca 7200  
 tggcagaacc cctgaacggg ccaaagtcag gactcaaacc cacgggttga gtttggggtc 7260

agaacctgga ttatagatag acaccttaag tagttgcagt tgtagacact ggagcagtta 7320  
 tgtcccaaca tccacctgct ggctgaaata gtgcttgagc cctcaaacag gccattggtc 7380  
 ttttttttcg aatgtgggct agcggagtta ctttctaata ctaataaacc agatttaata 7440  
 ggaataatgg ccggccaaga gtttcacgat tgagatacat gaaatttagc aagatgttca 7500  
 ctcaagagaa aaaaagcacc ccgaaaccat gatggctgca ttgaaggaga ttatgagggg 7560  
 tctcttatgg ccaagcgacg gctcttcttc tgtagatcgt taatagagag gtttgcggcc 7620  
 atatccanag cagaaataaa ggctgggaat ctgcacatata aggctgttgg gaaaactgat 7680  
 atagaaaagt 7690

<210> 5030  
 <211> 2797  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5030

tagatgacat ttgtattcac acatcggtat agacaaatta tagagtagac gttcaaaacg 60  
 gccaaagctg aatggataga ctccatatgc attgaatata caatgtattc gctgcaaagc 120  
 atggataaaa taagatgtac aaagtgtctt tgttgtcgct ttgaaagtgg tatatcatca 180  
 catcataagg tggcagtgt accaaccctc tatatcacct acatagacag ctgatagacc 240  
 ggcaattctg ttgatttate cgtgaatgcc cgttgtgaaa gcgtatttgt ccgtgctcgt 300  
 gatgggtggg attgaaagag attgcaataa tcaggagtcg tagggctgat cccccgagt 360  
 tcaaagttat ttgtcgaaac gcactattta ccatcttccg acttttgaag gccatctttg 420  
 ggaatatggg atgcgcacgt ttacactgt ttatcggcat ttttcgcctt ggttgagtag 480  
 tcgacggccg tcgcgagctc ggggtgcgcg tccgctgtcg atgtcgaggc cagctcgata 540  
 tcgtaatcat cagagcgacg acggtcggat tcaactccct cgcttgattt aatggatcatg 600  
 gagctgctgt tgcggttggg ctggcgccct cgaaagaaga ggccggtgag gacgtcgaac 660  
 agtttgcgga accagtcaat ccaggcaagg agcatggtgt acctgactgt gcagaggata 720  
 cccaatacac cgcaggacta aagcccgcga tatgttagcg gattcattcg tattcgtaag 780  
 aaagggaaaag ggaagtcgat ttaagtttga aaggagaagg gaaaaaggca aaagagggaa 840  
 tacagagatc atcatctccg acgagagacc agtcttctta tcagggccta tagcgtcgcg 900

ctcatctctg caggcatgcc tgtccccgtc attggcgacg aggcaggaca tccatggcat 960  
 cagatcttct tcgctgtact cggtgagct gcccacgc atatttacgt ggcctacata 1020  
 gccacaaat accagaagca aacaagagat agcaatcgcc ctccactgga gttttacat 1080  
 cagccatagg ctccgtccca tgatctttat ctgtaaagcg cgggaaagtg gatcactgcc 1140  
 gtcatctcgt ttcttgaaga ttgagtagat gtgcgctgtc ccgcctcggg ttaggacccc 1200  
 gcggatagtg tatccgaaaa tgtacactgt gatgagccag gagatgaatg cgacgccgat 1260  
 gagcgggccc cagaaggagg cgatactgtt gtcgtagctt atatagcaca tatctccaac 1320  
 ctggtacgag acgccagaca cgccgagcgc gatgccgagc atgccggcgg cgccgccgaa 1380  
 gatggtgata atggagatcc accggaacac agtaccgggc tcgacatccc atattagccg 1440  
 gacgtacagg gcgagggagc ggaagaagcc ttttcccacc aatcgtcagt tctgttcgaa 1500  
 tgagtcacat agagctggat ggggggtcac atacaccga tgacaagcac ccaagcaccg 1560  
 tatagtatta atgacccgt ccatgcgcag gtcatgtcag agagccagta atttggtgtg 1620  
 attgcgtcgt ggcattggcg agcagtgcc ccaaggggga tgatgaatgc gagctgaata 1680  
 ccgatttaa atcagcgtc caggactcgc ctgcggtgat tgcgaagtac gggttattgg 1740  
 gacggaccgg catgaagaca aaccccatca atgggcttat cactagataa tgtcgtcggg 1800  
 tatcctcagc tgggagaaga atgtacgtca acgcaccgat gacaacgaaa accagcacga 1860  
 tcagcgcag ccaagggacc atttcattgc cgaggcctgt aaccatatta atagtcgctc 1920  
 gttgtacaag tactggacgc accgtctgaa tactgccagt ctgtaaattg acacgggaaa 1980  
 cagcacgaaa ccgtctcgtt gccgacgagc tgaggctcgc accagcggcc tgcaagatct 2040  
 agataagaaa cgtcagcggc cacttcgagg gagcaggata gcgaaagact gacagccgcc 2100  
 ggtgtcgcga atagaaagct ccgcgatgaa tggcacaggg catgatacgg gggagctgtt 2160  
 cgaggccatg gccaatctgc ggcaggggcg ccagcgcgt tgcggggga ccggtttggc 2220  
 aaacaagacc actaaaaccg aaaataggcc taattgaccg ttagtcaaact cctcatcgac 2280  
 atggttagaa ccgagtacaa gtaagaagtg tgaactgaca gttaagtga gtgacgcctc 2340  
 actgggcact gggctgagag gttggtctta tgtactgggt tgagagatta gagttcgtgc 2400  
 tagcagccag ctaggagaca acgcagattg caggcagggc tagagcaact ggggcaggcc 2460  
 taaagcccgt catgggcgcg atgggcccc agggctaccg cgctttaggg caagtgggcc 2520

ccggatcgta ctccccctgg cggtcgccca gccgctagga caggccagcc cacggcactt 2580  
 ggcgagtata gtatacgtac cagtcgaact ctatagatat gactgaaggg atatgactga 2640  
 aggtcgagga tggatatagat aagtttagat tttttctttt tctactcccc caaagccggt 2700  
 aaaatacaac cgtatctaaa gggccactcg atatgaaagg aaggaaattt aagcaaaaac 2760  
 aagtggttgg ggccatgttc cagccaggta ccataaa 2797

<210> 5031  
 <211> 3152  
 <212> DNA  
 <213> Aspergillus nidulans

<223> unsure at all n locations  
 <400> 5031

ctcaagatac tcttcgggag ccagcgcata ttccttccg ccttgctgag cacgcacttg 60  
 aagaaatgaa cattcggaca taccgctgat gagctccacg atcgagggcc gtgatgactg 120  
 ggcccagagag gacgacctcg acttgggaca ggaccgaac caggacgaac tgcaactgca 180  
 tccggcggca gcaaccagca gcaacagcaa cggcggtatt aagagtggga actcttcgga 240  
 ggaattgaaa gatgggtcaa ttgcgtatat agaggaggat atacaggatc cggctgcgca 300  
 gaatcatgtc tcgagaacgg aactcgactc gccctcgccg ctgcagtcgc cgatcaagtc 360  
 cctcgtcct gagctgatag gctccgacgg tgtcgacgat gttgcttcca acccggacga 420  
 tacgccgtcc ctgcatgtgg gtgtgacaat ccacggtttg actggagaat cgctaattgg 480  
 ttcgttccct agggatcaat cgggtcgctg ccgagtagta gtacactggc atttcgtggc 540  
 tcttctctc ttcccagccc tagcccgctg catcgccat ttgaccttcg gttccagtcg 600  
 aggttgtcag cttcatctct cggcagcact cggccgctgt cggcgtttct tgcacaagtc 660  
 cgctcgcgaa agtcgtaact cagagccgc ttatccccgg ccaccattga gtctgaccag 720  
 gaggggagtc aggacccttg ggaagttgta cgctggacga agctgagaaa aatcacgggc 780  
 caggcatttt cagaggctcg caaacgaaat ttcggctccc ctacgtgtat agtgggtttct 840  
 acgtctatcg ttattgggac ttcaagagga attgttttgg tatttgatta tcagcagaac 900  
 ttgaaggctg tcattgggca cgggacgaaa ggtaccgcat ataattatca ttttgaatgt 960  
 tctccttggc tgattttgtt cttgcttttag ctgttgaatg tggatcagtt cagtcgctgg 1020

ctcttttctgc agatcattcg actgttgctg caggtcacgt ctcggtgat atattcacat 1080  
 gggagatatc aaggccagcg cggccttttc ttaccattcc tectatacct gtaaatacagg 1140  
 ttgagacgcg aacttctgat ggccatatat ctgggtcgcc ggtcatacac ttgggatttc 1200  
 tgggaaccag gcgcactgcc gtcgtgtctg cggacaagcg aggaatggcc ttttccatt 1260  
 tagcgacacg cggatatgggt gctatgggcc gtacggtgaa gacaactcga gttctaggcc 1320  
 gctacctca gctgacgctg gagaacgcta agccgcggaa cgcgagttct gtgcttgctg 1380  
 tctcgctct tccccttggg aatgtcgaa agtccacaga ctctcttggc ttagttgcca 1440  
 tgcttacctt gtatttgctg gtgatcgct ctacaacgcc tgtggcacag acccaacaca 1500  
 aatcacctcg tccgaaagag gtcgcgcgtc atggcgcaat gacaggcgct cttgcctggg 1560  
 ttccggcaat tagactgaag gcaagcgatt cgcagatc caggactaaa ctcggtgact 1620  
 gctggtcaaaa cttactaaca atactggatg tgctggaggt ggaatcagat gattcatcaa 1680  
 gagatcgccc tccgagctta gaattccggc cccgaagcag atggagagca gacgaggcta 1740  
 tcgtggccgt acaatggttg agtcgctcg tggtggccgt tctgactatc acacagcaaa 1800  
 tgctaattct agaggaccac acgatgcgcg tgactaatgc tggtgatttg ttgaaccgac 1860  
 atatttacca tgtggacctg ttttctgctc aacttcactc attaattgag caatttaatg 1920  
 aagaggatac ttccatgcat ggtgttggtg ccgacgcctt ctatatgagc ttccgatcct 1980  
 acaagggctg gttgtttatg ctcggttta acgaattatt gatcggcaat ctatcaaatt 2040  
 gggcagatcg gctgcttgct atcatggaag ccggtgattt cattggggct attcgtcaag 2100  
 caacagccta ttatagcgga aactcagaaa aattgactgt tggcttccc gattagcacg 2160  
 ctctgaggca acccattgtg cataaaaggc tctgcagat cataactgca tctatgaagt 2220  
 atgcttttgg gcggaactca gaaccacta atgaccggct cgagcgccaa caactggaaa 2280  
 agctagctca cgtctctatt tcagcctgcg tatgcatggc ggacaaagac ttncatggc 2340  
 aataagcctt taactgcaac caagaccatg gaatccgaag agtcttcctt gatgcgctgg 2400  
 aaccatttat tgttgaaggg acagtggtag ctttaccacc ggatgccgtc aaagccctga 2460  
 taaaccactt cgtcgtcacc cataccgcta gtcaactgga agagatactc tgtttgcttg 2520  
 aactagcac gatggatatt gaccaagtca caacattgtg caagcaacac aacctctatg 2580  
 atgcatttat atacgtttgg aaccgatgtt tgggggatta cgtagggccc ttggaagagc 2640

tgatcaaatt gateccctttt caacagtcca tagccaatgg ggattccgtc tacgagccca 2700  
 aggattttac gaacgcgatg aaaatcttcc catatctctc tttcattctc acgtcacgct 2760  
 catatccgac agggagcgat atggatgaca ccgaagcgtc acgagcaaag gcagccttgt 2820  
 acgactattt gttctctggg actcgtggat ccatctctcc tctggaagtt ctgctgaagt 2880  
 ttgacacgtc tagcttcatg agcatgctaa acgaagcgtt cgaagatagc tttctcaatg 2940  
 agcaagatcc ggacgaggtt cctcagcaac ggctgtcttt caaccgacag tatttgatta 3000  
 gcatcttgtc ccaaaccatg acatcaggct ctttccctgc gtccgattct atatatctgg 3060  
 atatgttcat cgctcgcaat ctacctaaat acccgcaata catcctcctt tccgggagca 3120  
 ctctccatca agtcctcgaa cgagttgtgc cc 3152

<210> 5032  
 <211> 7733  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5032  
 tttgaggaag atcagatgct tagtcctaata cattgtttcg tgatgatagt aaaaagcaga 60  
 gagtgccagt agtcgccgac agacataaga aagggtatgg ggccatgtat ggacagaaaa 120  
 agtgggtaat gatgcacagt tttccaactg ggttcgcata ggaattttga ctgaggcaag 180  
 gatatgggga tgccagaaat taggtaaata cattgggacg tagggataca tatcgggtcat 240  
 caagggtcgt aacaagggtt caatagcagg ggtaatatga gttatagggg aaagaaaaga 300  
 acaaatatga aatggacgag ttcactatgg ccgtagctcg ccgcctagct gcagaacagc 360  
 gctcggcctt ttctcgcgga ttttagggct gtcgagtcct ggtggcagga ggttatccag 420  
 gttggatcgc ctccgaacgt ctttagatgc cagcggggtc cgggcgagcc cgccaggtgt 480  
 tcggccaccc caggcgggtt gggcaggact gggagtcacg ttgacaaagt ctgcaaaatt 540  
 gaattgctgg ttcggtgtgc cgaagttggg gaacaaccct ccgcctggag tcggggtcaa 600  
 ggatgggagg gcggcatgtt gactgggagg cgtggaagga gggaaactctt gcggctgggg 660  
 tttgatcgcg actctggctt gagtgggcca gttggctaga tacagaagac ggtctgcacc 720  
 gccctcatgg cggaggttgg cgacatttcg tgatagaaag gattgctccg gcggcggagt 780  
 gccaggtggt gaggagcccc acgacggagc tcacttgaaa gctgtgaaca ggaagatcca 840

gatcattttc atcgtccgag tgggcgtggt accctggccc tggaaaggaa agctctggga 900  
tgaggagccgt ctctgaaatg agcgggagat tgtttcgacc gcggcgagtg ctggtatgac 960  
gacggaaccc aggagacgac tgggcaatt gatgcgagcg cttccacgac gcccgggacg 1020  
cttttgccgg acggtcgatg tctgcggccg aatcagaccg gaggcgtttt cgactggcag 1080  
agagcatggg ctgcatgacc ctggagttga aggtgactgc atgtctatct ctggacgagc 1140  
gagggagttc cttcgagtag gaataggacg aggctcgag gggggaggtc agaggcgtct 1200  
cgcaacggct gttggaaata tgggaggagg aatcggaggg tttgtcgctg ctteccaagc 1260  
ctagagagat atgcagtcca ccgttctgac gcgagggtag ccgaccattc tggacttga 1320  
ctttggcgag cccgagacgg tcttgagggt tgagcgacac ctagagacag acggccatta 1380  
gcatgtttcg cgtagcctta ttccaagagt atctggatca attgacatac ctgagcgatg 1440  
tcaattttgc ggattgtctt ctcggggttt gatgggacca ttgcttggtg ggtgacactg 1500  
aaacggcggc gacggccata aaccaggagg ggaggagact ctgaggtagc caagcagggc 1560  
tcaaaggaag aaaggaaaca ctggaactca ggactcaaga tgcagaaagg gatgacggac 1620  
tcggaatcca gagagtggag agagagccct ggaggaaact tgaagctgaa gggcggctgg 1680  
taggagaagg attgacaccc aattggagca cgcgagatgc actaaacgat ctgtgggaac 1740  
gagatctgaa aacaaggcca gaatatttga ctatggcgta agactagaag tttaatccag 1800  
ccgatacccc gtactcgagc ccaagatatg tggacggtcg agatccaggt tggccggaga 1860  
gaatttttgt tgggtgtccg gtattctgca agtgtgagtc tgcaatctcg tgtggaaccg 1920  
cgagcgagaa aacgcgtgcg gctgcggcgt gctagcatcg cgacgcattc cccggctggt 1980  
cgtctactca gtgtcgaacg cccgtgatcg atctgctcat tttcatcta cgaccgatcg 2040  
agacgatcga aaacatacgg ttctggactc taagctgtag cgggagcaat tcagagccat 2100  
atagagttct ggtgcatatc tcattaaatt atcgatttgt gcgagtacgt aagtagatat 2160  
gccgactcct tgaaacccac aaccactgg aatctgatgg gtcgccagtt tcggccgttt 2220  
aatagtctag caaattttcc gatcgagcat tctccttatt cctagtttct taccctcctt 2280  
catccctttt gtcgcgcggt acgacgcgac aatctggcca gattgtgtgg accgttggac 2340  
tatgcagatt agcgtttctt gttcaaccac gggatacgca gcgggcgcag cgggcgcagc 2400  
tgcccggtt gggccagccg tgccacctgc agtgtgctct ggaggccgct ggacgtagaa 2460

gctgtgagcg atgcatcaag aggcagaaat aaaaggacca gcgggtgcca gagataaggt 2520  
ccactccagc agcaaaaactg gaaacaagca gaaatcgagc cactgagcca ctgagccagg 2580  
aacaggaacc aaggaggaag agtatgacgt ggagtggatg atgcaatagg agagcgctaa 2640  
aggacattct gtgtctgtca acagataagg aagcccagta aggatacact gtatacgtag 2700  
accatctcac tatgaggaga gacgagaatg cgtactactc tgctcgatcg gcacttcaat 2760  
atggcccagc ggaacggggt gcatatctgt atctatctag attgagtgcg ttgagtgcg 2820  
cggcttgacg tcttcgctga gacaaatata gcagatcgcc gtaggtgaaa ctagacaagt 2880  
gctatccagg cgtccgaccc acttgtaaag ctatgctcgc tcgttcttcc gttctgtttt 2940  
atatgtctca gcctgagcct gccttgatac cagcttatta gtgttgacca gactttctga 3000  
ttatcctgat ctttcctcgc gagtctccct ccaccagaca actgctgtcc agtgcccgt 3060  
cacgccgtca agaccacaaa ggtacgtcgt cactattctc gctctgatcg ccttccgacc 3120  
gtccactcag ccagctgggc gccggctgca gtgcagagca ctgcagagca ctgctctgca 3180  
gctctgtccc ccactctggt cattgccaat gcttcttgcg ttgccaagta cagccgtcca 3240  
cagcctggcg ttgccttgtt tttatttacc atgtttctta tcgattgcta ataagagct 3300  
gtagctggtc gactttgata tctctccatc ctgagctcca gtcggtgggg ggtcgtcaat 3360  
atcctctccg caaacggctc ccagctcttc cagctcgtc tctcacacat cgaacccatt 3420  
ccaacacccg ttgactccag tcgatctcgt cgctcgtttc tgacagctag cgtggctctc 3480  
gtgcttaciaa acctgttcat tttcgttcgt tgggtgttag gaagacgggt gacgactctc 3540  
aagggccgct ccttctatt tcgtccaacc atacagtacc ccagctacag cacaacgtcc 3600  
aacgctccc ttogagccac cttttctcct ggactcttcc ggtcgttcc actgctctct 3660  
caacatgcct ctttttaaga acctgcgcag tcgctcccg tctagtttcc gaagcacatc 3720  
gcgatcaaca gaaaagtcca gcggaacatc caacgggacc cagtccaatg gcgatgtgac 3780  
ctccggaaaag tctcctcga ccacggactc ggctcgtat agttctgtca cgccgccgtc 3840  
gtccattaag cctaataatgt ccaccataa tctaccgtcg ctcaatggct ccaatggcag 3900  
ctcgaacggc acgagctctc ccctcactgt gcccagcag cgccacctc cctcggggtc 3960  
tccgtcccag cggaatagct actttgtacg tgcgatcctc tcaattagtt atacctaacc 4020  
ttaccgtgct tcgatagggt ggtagctccc tatccgtcaa cggtgccgcc cggctcgtcg 4080

cggggcccgtc gtcgccctat ggacccagga ttctctcaat aacagacaat gcgtgggtgc 4140  
 gtactcgctt tctgaaatca gtgggttcat ccagctgact aggagccagg ttaacaaaaa 4200  
 gatcctgtta atatatggcc aaatcgggga cccaaggcaa catccgctgg acggtagtat 4260  
 agtgggttaac catcaccaag atagctttcc ccaggtctcc tggcccgctca attcgtccca 4320  
 tttcaaagcc ctcgctgcatc ttgttccggg tccgaatcgt ctccgtcttg actttgtctc 4380  
 aaccaagtca tcgtctggca acctccatca tgctactcat tctctcttga tcaacatcaa 4440  
 ctacctcccg ttgactaact cgccgccgct acacctcgtg atactgctcg gaaaggattc 4500  
 aaaagggacg tttgatgccg tgccggaaaa ggcgaatcgc gagggtaatg atatagaaac 4560  
 tgcgatcaag aagtaccgaa tggtgcata ctttggcag gcattcaccg gtgaacagat 4620  
 gttccgcaac aatcttggac gacggtgctt ccgttttgag gaggaatggc agccggggcac 4680  
 cgtcagtaat cgagatgcag cgagtgggca aatgcgaaac gaggcgaaaa ttcattattgt 4740  
 tcggaccgaa aagactgtcg cagagctccg ggacctgcag cttgcccagc aatatggccc 4800  
 ggctacgagg aaggatgagc ttttccgcat cgccaagag gccgtgaaga aacatttcca 4860  
 cctaaagccg ggccagaaac agtacgtctc cgtcttactc ctagactccc attgggatac 4920  
 agagtcgcaa accattaccg ggcattgccg cttgggctcg agcaatggcg acctgaaaat 4980  
 ggcaatgttc gggctcact gtcttcagag ttatccgtcc tgtctagagg aggtggttga 5040  
 tgcattctcc gactgcaccc gaacaaacac agattacgtc gccaacgatt gcgggcaggc 5100  
 tggttctagc tgggaatctg caaatattgg tateggcgcc catcttcacg aagtcggcca 5160  
 ctttttcggc tgccctcatc aggaatcggg cgtcatgctc agagactacg tccgccttaa 5220  
 ccgtcccttc gtgactcgag agccattctc gaccgaaca aagacacagg gcctgcatcc 5280  
 atgcctgcc aaggacgaat gcacatggca tcgtctggat actttgcgct tccggttcca 5340  
 cccttgcttc cgtcttcta atgatgtcc tatgagctca gacgacagcg ttcaagtctg 5400  
 gcctgtggaa aacggcagga tctgtctgac tgcgaccact gggattgcgt ttattgaact 5460  
 gtacggtgaa ggcgaccagg tgtgccatca tttccttgag tatctcaaca cagaatcgac 5520  
 cagcaatggg cttccgaaac aagtcacagt gactgagagt gagctgcggc aacgagtgtt 5580  
 cggtagcgac aaagaaaaga agaaacaggt caaatctct atattttccg gtactctcgg 5640  
 ttcgtttacc gtcgagtcca tcagcagctt gaagtccaaa aactcccagg tgaagctgcc 5700

caagggcgtc ggttatcgag gatgtaaact ggggatctct caattagccg aaagccaacc 5760  
ggagcagctt ctcttgact gtgctttcca atataagaaa ctcttaactt ccattagagt 5820  
ctatcataat ggcaagctgc atgggatgga attcttgtat gaggatgca cgagccaatt 5880  
gtttgggaac cgggacggaa tgtccgacga ttttgtgcta ggtaagtctg tacctgacct 5940  
agtatctgcy taccacgggc gtctaataatg tggttgcaga cacgcgacgc ggagaaatac 6000  
tcttaggctt ttatgtccga gcaggacact ggatcgacgg tattgagata ttgaccagct 6060  
taggcagaaa atctgggctc tttggcaatg ccagcggagg ctccagggtat gtgttaagcc 6120  
ttttttttac tcaagagact tcgtgctgac aatcgctcta ggtacaactt aattcctccc 6180  
ttgggctata agattgccgg tcttacagga agctgcggag cttggatcga tggctctctc 6240  
ctcataatca tgcactgaga atctcaggat gatctagttg tatagtcaca ccgattcgtg 6300  
gcggggatcg ttgagcttcg cttctccaga ggtcccgggtg ttccgagtc tttcgtccca 6360  
gtctcaactc tgctacgggt ttcaaaacgc gtgccttacc agttcgttgc cgaggctcgt 6420  
gcctgaaaag tttattcaac catatacaac catttgacg acacgtcaac tcgcagttga 6480  
cctcttctcc ttgtactcat ttctcgtcat tcaacatacc ttctcggcac cttcttttcc 6540  
gcatcccgac aggtcggggc tgtgctttac tgagcggccc acggtacaga gggcccactt 6600  
cgtcatacct gaacagctca tacaacacac cttcgggagg tgtcaacttg tacagtgttt 6660  
acatttctcg tgtagcggcg tttggagatt gcctttcttt gcgagctttg tctggctctg 6720  
agattatcag gcgttggcgg ttgtgggaga catttatacc atgagatgag caggacttga 6780  
aacatgggtg ttcactctac gggtatacca tacataattg ataataaggcc gactgggtcat 6840  
agaatgcatt atttttgttc acattagagt ccgttcttgc agttagattg taaaatccca 6900  
aacgcagaac tcatgcctac gtcaaaactac gtgtgccttg tgtattaggc cgtacttcaa 6960  
taacgagggg attattcctg tagctgcgta ggatacaatc tgatatacct ccagaacgta 7020  
cgaaaagttg caactgactt gattagatgt acggtaacgc ctgtacggta aaaaacaacg 7080  
agtcactctg acattagctg gagcagcatg cgtaatcaca tggcctccag agacataaat 7140  
gaaaacatta tttggacgtg acacccatcg aaagaaaaag caatggagca catgggtgctg 7200  
tctaccagtc ttttggcagg cgaccagcgt ggatagcaag actagacccc aaagatgcgt 7260  
acgaagggtca gggccaccgc gagaatgaca ctgctcattc ccccttgggt aaaccggca 7320

ttggcagctg gcgcatccgt cggggttggg gagactgaag ttgtactagg agcctcagag 7380  
 ctgtcggcag gagtggaagt gccagaggta gccgagctag tctggagcgt agtagtggcc 7440  
 tgtccttgag agggactagg ggaagcttca gccgaagtag gctccgcaga tgtggcgcca 7500  
 tcggctccag aagattggga tgcggcgggg ggctgcacag ctgagggacc agacgatggg 7560  
 ccagaagtgt cagtcgcaag ggttgtctca gggaccgagg taatgggaga gcctccagcg 7620  
 gaggtaggtc caacaggtcc acaaatggtc tccgtaacgg tgacagtaac aacctcttaa 7680  
 gcagagaaga tcctaagctt ggggtctcct atagtgagt gtattaattt gat 7733

<210> 5033  
 <211> 2537  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5033

attgaggtgt gtgtttcttg tgttctctta cgtgtcctcg aatcaacaac acctaggccg 60  
 tggggcgccg cctcacaac aaagccgcgc ttctcccaa acacttcccc gaatcctcaa 120  
 acgaactccc tcgcaaccaa ttcctgcaa tgaccgaggc tactcttcac aacgccccta 180  
 tcgtcatcga caatggcagc ggtacgatcc gtgccgggtt cgctggtgaa gaaatcccct 240  
 catgctactt cccgtcattt gtcggtcggc caaacatcc ccgggtcatg gccggcggtc 300  
 tagaagggga cgtctttatc ggacaacgag cccaggaatt gcgcggcctg atgaaaatcc 360  
 gctatccgct ggagcacggg atagtgcgg actgggacga catggagaaa atctggcact 420  
 acgtgtacga gaacgagctc aaaacgctgc cggaagagca ccccgctctc ctcaccgaac 480  
 cgccgctcaa tccgcgcaag aaccgcgata tagctgccc gatcatgttc gagactttca 540  
 acgttctctg tctctatacc tctattcagg ctgtgctgtc tctttatgct tccgggcgga 600  
 cgaccggtgt tgttttggat tcaggggatg gagtctcaca tgcggttccg gtgtttgagg 660  
 gcttcgcaat ccctaatagt attcgaagga tagatgttgc tgggacaaac gcgccgacac 720  
 accgtctttt tgacgagatc tatcgcccc attccggcgc tctatgtcta tctagacaat 780  
 gagtggagcg agatcctggc caaggctcgc caggctggcg gtgggtttgc gctgacgggg 840  
 cccgtctttg ccacggatcg gagagtgatc tgggaggcgg aggatgcatt gggatactcg 900  
 gctgggaact ttacatcag ctgcaagacc actgctgcgc tgatcggcca gcagttgttt 960

ggtggtgcga gggccagcgg cacaaacgac aaggctggaa gctccgatat tctgagacgg 1020  
 ttccccagcc tgcgcgatgat caaggagttc tttctgttgg aggggttcaa atatccaagt 1080  
 aaccagtaga tagaatatac gtgcaggtac ttgaaatggc agttatgact gaagtgactt 1140  
 gtggatactt ttatgtagca aaacgcacgc atacacccag gtagggaggt agcttgctga 1200  
 ggtatagccg aaagtaccta tcccaaagcc tgacctgcta cttcggcaat cattgcatag 1260  
 attaccaga tctgtaatac accacactcc agactccaaa ctccatagat aatagccctg 1320  
 ggtttgcggg tcatctccat cccctcctc gggccccctc ccggtctctt atcaccaagt 1380  
 ttagatcacc ggcgaccctc ccaaccatta tgccacgaca cgccatgcat accaaatagc 1440  
 tatataaccc ctccccgatt aacaatgatc gagctcgcga acagtacatg agagatggcc 1500  
 cttttctcaa agtctatccc aatcgcaatc atcggcgacg gcgccttcgg cctgtccaca 1560  
 gccctacacc tcgtgcaaaa cggctataca gacatcacgc tcttgagca agatgagaag 1620  
 attcctccgc catactctgc cgccaattat ctcaataaga tcgtgcggga agagtacgag 1680  
 gatccatttt acacgaattt gactgtagta cgtacctgta ctgccaccct tcaattcacg 1740  
 ggccgtatcc aacaagaaga agaagaagaa gaagaagaag aagaaagtac tgaatacaga 1800  
 tatagcaagc aatcgccgca tggaaaaccc ccctcttcgc gccacacttc caccaaaccg 1860  
 gcttcctaca ctgggaccgc aggttgctgc aaagtccctg tctgttgccg atgttttgct 1920  
 ctctgatgaa gaaacttcgc cccttcgtgg gatccccgtc acttactgac gcgatctggg 1980  
 ctttttctac gagcccgacc ctaaaactaa cctgctaaag ctctgcccga tgggcagcgg 2040  
 gatatcaata ccgacaaggc gactggcgtc tcgcactcgc ccttccctgt gaaccaagag 2100  
 gcatctagcg ggttcttgcc agccgaagac gaaacccgga ttcgcaaatt gctccagcag 2160  
 acattaccgg ctttagcgaa tagaccgctt gtgctgaaga gtctgtgctg gtttgccgat 2220  
 acgaaagaca gcgactttat tatcgatttc gtgccaggga gtaagggaag tgttgttatc 2280  
 gagtcagcgg actcgggcca cgggtttaag atgtttccca tagtggggag ctgggtgaga 2340  
 acttgctaga ggatgaacag aaggagcaga aggtgaagag gtggagatgg aagggcgagg 2400  
 aaggcagaca ggaggattgg ggggccgatg ttagttggcg acttgacag agtagggagc 2460  
 tcagggatgt gctgccgggg aggataaagc ttagcttac tgagctcacc gacgctactc 2520  
 tctcatatcc tatttat 2537

<210> 5034  
 <211> 9229  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5034

```

tttagttgga aaattagttt taataaaatt cggagcaaatt ttttggactt ctcccaacaa 60
agttttgggt taaaaccttc aaaccgcttt ggtttcgaca tgggtttaag gtgaacaccg 120
cctcaaaaag tcttttgggc ccttctcaaa aaaagggatc gagtcacaag ttttgggtcg 180
taagcttttt aaaagcattt gcgcttcacc gggtcgcgcg aatgccacaa tagctattgt 240
gccgctcgac ggcacaaaca gcttgggtgat ttgtccgaag ggttcaaata atttgagaag 300
gtcttcggtt tttgtgccat acgagaagtt ctttactaaa atggcgagat ttccgcgctc 360
tcgttgcttg aaagcgtcca aatttacacc gtttgctttg aaataagctt ttgtctcttg 420
gattacatgc gtttcagcat gggcctgctt gacagcggca tccgacgaag tgggatccaa 480
aaggtcagct ttggagacac caattcgctt agcaacggaa gacatgacgg catcagcctg 540
tatgggttag caaatattca cgtagtcctt tagcgacttc ctaactcaca ttcataata 600
gggagttcca gctgaacggt gaagaagcag cctcctgttt tcgcttgatc tgcttttgct 660
tctttaacgg caatttggac agctcgtgct cgtctagctt gtacgtcttc ttctgcgatg 720
caggcagaat atgtaataag cgacctgaa agatctttcc atctaaattt ctgtacgctt 780
caacagccgc gtcaggatca gcgtactgaa cgtacgcaa tcctttgctg gtcgtaaatac 840
ttgtatcgaa ggcaacatga atctaaagca atgaaacggt agcaatagct tcaaggcaat 900
tgtatgagtc aaaacagaaa taaagctgct atatcagata acgagaggca tctactaaaa 960
ttctctcttc tgattttcac atcacttgct tttgcatcgg atgtccctat cagaggtata 1020
tcatcattca agcagaagat tgcactatga agggcgtttg gatagcgaaa catgaaaggg 1080
tccttacttc ttcaattttg ccaaaaggcg aaaaaaccgg ctcgagttct gactctttcg 1140
tctcgtaaga caaatttctg acaaataaac gtgctgaaat gcggatgttt tcgatgttcg 1200
tgtcaacttc cgctgctgtg ggcgctttcg tcaagtcgct ctcagcgggc ttctccggac 1260
tctcagcttc gggcttctca acgttggagt tgattattgg cgtaggattc gtggccgcgcg 1320
caggggacgc aaacgtttct tgttcatctt cgtctagcaa gcctagaagg cgacttgttt 1380

```

ttgagcgcac gcagtcagag tcagaaacag gcgcctggtc cttttgcggg tcctcaactc 1440  
 ctcttcatgt ttttcaggcg agggttgaca tcgctttcgt cagttgtagg ttgatagcca 1500  
 gcaactactg gaacatgaga gctttcgttt gcatectgac ccagttttgc ctttttcttc 1560  
 tgagcgtatg tcagttcctc ctgatcatcg acgtcgaaag gctgttcttg ttcttgtgca 1620  
 tgtgagtcgg tctcatcagg atcaggtagc tgatcatcat ttgccacgt tcgggtctta 1680  
 gatggttgct gtaagagggg aagatactct tgcgttttag aatccttgat agtatcccca 1740  
 tcgcgcttac gcttgagatt gtttcccaag gcacgtcggg gctgagctgt tctactgtcc 1800  
 ttgcggtggg caggttccgc atcaatctaa ttactggtca gttacaagac caccttgact 1860  
 ggtcagcaag ctcaatggga aaaacgaagt gcaaattaag cagagagagg agtgacatac 1920  
 cggcttagca atgtctactg aaatcttggg catcctcata tatgtcttat tgaagtaaga 1980  
 aacagcctgc tgagccgcct cagagctttt gaagcccacg aagccaatcc tccgttttgg 2040  
 caggacatga gcattcgtga catgaaagcg agtttcaaag tgtttcttga gttgatcatt 2100  
 ggtaaatgtt ggggggaggg cagagacaaa cactcttgtg ctctccatgt ttgtggatag 2160  
 agggtttgtt taacaccact cgcaaatgaa aaagttgcaa ccagaaaact ttttggcggc 2220  
 tttttttttt ctgctttcat agtgccgaag gcggtgagag aaaagagagg tggctctgtg 2280  
 tgctcgcgcg gagtttctg cgcgcagccg ccaaacaaca agtcgactga caacgttctt 2340  
 cgagtcgcaa gtctaattcg tcgcatactc tcgctatcag gggcgtctct caaaatcgat 2400  
 tatctttagg ttattactta gttgctgtca aaatggcttc cgagaagaag gacaagctcg 2460  
 aacgtaagcg ttgccacca tacaagctcc tctaagttca ctaacgccga ttccagccca 2520  
 aatcaagtcc gtcgacatgg taagagctct gatgctatgc gaatatattg aggctcacga 2580  
 ggggatagtc ggaggacatg cagcaggagg ctgtcgaagt tggatgaat atcctctgcg 2640  
 atttatgagg ttcgaggcta attgttttagc tatcgaggct atggagaagt atcatattga 2700  
 gaaggatatg tcttgctgcg gacttttggg cccgatacat gcctgtcgat actaacggca 2760  
 cctaggacat tgctcaatac atcaagagag aagtgcgcgc cgccaacca aacctacgat 2820  
 ggctcggaat cttaaatgg aacagtttga ctctcgcaaa ggcgtacat ggcactgtgt 2880  
 ggtgggaagg aactttggaa gctttgtgac gcacggtaat gccgcattgc aagtgatgcc 2940  
 gagtatagac acttgctgat tgatgcctac cagaaacgaa gcaattcatt tacttctacc 3000

tcggccactg cgctatcctt ttattcaaga cacaataagc cagcggaaaa caacactcga 3060  
 tacctttcac tcaagtcgga aggaacgcat atgctacttc aactcccata ccactttgtc 3120  
 acgattcccc aaccgcattg agagaacacc tcgagccaaa atagtcataa ctcccttagca 3180  
 tgcgacattt tggtatcaca attcattcgg tggtattatt ggtaaactta tgccctgaact 3240  
 atgaccaggt ttatctgtgt caccaccgta tgcgcctcac gtcaaagcc atgtaaacac 3300  
 tacgtatgaa tatttctcta tgatagtctc ttgagctctg cgttaccaag agagatgtca 3360  
 agctccataa gaaaggcaga ggaaaagggg caacacgtgc cctgcgataa tcataaacgc 3420  
 caagacccaa gccacagcgc cacacgtcaa cccccccctt ctttaactgc tgccttccaa 3480  
 cccaacttaa ccacctagat atcaciaacg ttctcgagaa ctagtccgca agggaagcca 3540  
 gctttatact ggctatatat ttcacctaga gcaaagccag tcatcatggc catctgcac 3600  
 actttcggaa cgcattggtga gttcttcgg accctagccc tccaccggtt ccataaagcc 3660  
 cggagggata ctccgcacgc tgatatccac cgcctcattg ggaaatgggt gtatactcac 3720  
 cagaggtaca gaattcacgt ccattgctgga ggggtacgaa aatggttagag cttattgcta 3780  
 taattgtaag ttttctcta tttcacgtcc ttttgggagt atacacatag tcccgatctc 3840  
 tgagacaagg acacggcgtg gctgctgttc aacagttacc aatggatctg gcactaaact 3900  
 ccgtacaggc aaccattgga atggacggtg tgtgacacga tggatgttg tcctgagtta 3960  
 actaactacg cctggggcta acgcatgtat acaggccatt cttcacgac tgcttcattg 4020  
 tatggcacta tcctgccttt gctaaaggca gtattgtacc gaagaaaagg aactgacata 4080  
 tcccatacag cccgtgatcc cattagcaat gcacaagtac aagggaagta catgctacac 4140  
 atgccgattt acccaggact tgcggtatat ccttcccttg ccttatgctc tccttttttc 4200  
 atctgatccc ctgcttctca gtacatgctt atattgttca taaactaaca agaatagtga 4260  
 tcgccccgat attaaccag aactcggcc gccccaaat gcaggctacg gaccacaacc 4320  
 tccgccgag gcatactttg gggggatatca gcagcagcaa accccgcagc agcaaatgca 4380  
 gtatcctccc gtagcgtcgg gggctacac accgccacca cagccgtatg cgtataagtg 4440  
 atgcgctcat ggcaaagcc tctgaggcag tgttcgtcag gtccctgaaa gactggagtt 4500  
 tactctcaga ttgatgacga tacctaagtt actgttctat ggtctgttgg ggttgatctc 4560  
 tggagggaac attgctcttg tctttccagt ttgtaattct atatttcgct ctataaagtt 4620

aatgacggct tggacgacat aactgcttca gctaggggtcc gtaagaatga attataatgc 4680  
ttaatgaaat agccatattc tatataagct atcttatcat gaacgctggt cgccaccctg 4740  
gtataaaaac ttggtacatg tgtaacgagt ggggtataat tgaatcaaac gcaaaacata 4800  
aatgaatcta gctagctgaa cacacaacaa cgcaagatat atgaacacac tcattttgca 4860  
acaatcttct cgctcgggtg aacagcacca gaccagact cttcactctc ttctgtctccc 4920  
tggcctacca gagcactgct ttccactgc cttcccatcg catcgagcag cataagctta 4980  
ccaacccttt tgatactgct cctaccctcc cagagcggga atagaatcac cccgaacgca 5040  
gtcccaaaga gccagatgat gcccacaaca acccagcctg tgaagaactt cttgctgaag 5100  
acgtaccgcg tgccatacat ggggtataggc cagaggatca agaaacaaat taccatgccca 5160  
actgtgagac agcgggaaat aaatgcggtt ttgttgagtt ttcttatttc ctcttctct 5220  
tgctgttgct gtgaagggga cgagtttgta ttggaagcgc cgggaatgag ctcgaggtcg 5280  
acgtgcgccg ccgcggcgac atccgagtca tcgactttgc ggatggcgcg catggattcg 5340  
tagtcgtaat tctgagggcc gaagaggtat gtcaagactg gcgagaagac gacagggctg 5400  
agaagggcgg cgacgttgcc cgctagcatg gggtagtttg ctctgtggt ttcgacggtg 5460  
aagacgccat actctgtctt tgttgtaaca agccacgcaa ccagggacat tgcgaggccc 5520  
aaaactggag aggcggctgc cgcgatccag ttctgcccct tccagacgag ggtcatggcg 5580  
cccgggaaca cggctgagga gatgatgacg cccatgagaa ggtagagata gcccataccg 5640  
ataccagcgt agtgaagacc tgtcgcaaag gcagccatcg cgattgcgaa gactacgcag 5700  
gagaggtgcg agaccagac gaggcgtttg ccctttgcgg cagggttgat gtaggcttgg 5760  
tagatatcgt aggtgaggat cgaggacacg gcgatgagct gggccgagaa ggcagaggtc 5820  
acggccataa agatcataag ggttggtgcat actgcgccac tatatccgag gagttcgaca 5880  
gatgcaaagg gaaggacgag gccggctggt acgtcaacgg aggcaatgcg gcgcgttccc 5940  
tctagcgcaa gtgcagagag acccatcggt gtcgcgcaga gccagggaat agcgaaccag 6000  
cagagaccgc cgatgacata tccagggaag gcgtggactg ggtgcgcggc gatggccttg 6060  
ttgtagtagc cgttgtccag gaagacagtg ccgaagttac cgacgagggt gatgaccag 6120  
aagataccgc catctttgga gcgcagtgtg aggtagctac cttcagcgtt ccctgaaacc 6180  
ggattgcgca gagcagcttg gacgaggagg tcatagactt tgccggggga gccaaagacgg 6240

tcgttgctgg cgtaggcaga gaaagcgaag atgaagatga tcacgacaat gacaacagtg 6300  
 tgcatatagt cggatgatgaa tgttgcttta atgcctccga aaaggggtgta cagaaccaca 6360  
 ccgattggga ggaggaagca ggctgcaaca actgggacgc cagtcataga gttgagcacc 6420  
 gctgcgccgc cagtgaagcag catggccgta acgaggatgt tggatcatcag gcagaaaacg 6480  
 atgaagacga gatgtacgac ggtaccgtaa cgggcacgga tggcttccag gaatgtgtgt 6540  
 gcgttaggcg cgcgtctctt gagttcaatg gcgagcgttg caaacaagat gatctgaacg 6600  
 gtggcgcttg caaactgtca gtatatcctt cgtgtcatac cgggggtgaag accaaccgca 6660  
 tgcatagaag aacggccccg aggtgccgta ctggtaggcc acggccgaag attgcagcag 6720  
 agtagctgcc cagggtccaac tgctcacgac agcagaggcc accaggccag acttgacact 6780  
 ccgtccagct gtggagaaca tctcagacgt gataatctca tgttgatacc tagaccgtta 6840  
 gtctgctcg aaaccaatgt ctgacaaaac ttacctctt agggaccagg tgatgaagat 6900  
 catgaccagg gcaaaggcga acccgagccc gatgatgatc ccgtacccaa acccttgggt 6960  
 gaggggagca gtgaacgtaa cggctctctac cccggcttca tcgggggcag ctataaccgc 7020  
 aaccattttg gataaccgaa gaaccagtgg agaactagca acctcaacag aaaacaactg 7080  
 ctctacttcg tagtacaatt tcaggcagtc tgggtgtctgc agtttccaga tctttaaggt 7140  
 tgtgatggcg acaactcaga gcagggactg acgggctgat ataaggactt aaatctccga 7200  
 tcccgtgcg tcaaccttca agcagtatcg atgaagctcg cgatagacaa gtaattattg 7260  
 gcgatgcaat gataaataag aacgaggctg atacaaggag agctgtcca gctcgtggaa 7320  
 ggcatagataa ggacgaccat gtttcgtaat aaaggattga gcttggcata gctcttgggt 7380  
 tctccatcat tcttcaactt cgtactcagg gtctctgaaa agaattggcct ggagcagcga 7440  
 gttaacctta ctgggcagga tgtttcgta tcgtggtgga tgaagaagca aatcatccca 7500  
 ttggaaaatt gtaggcttat caggaaagct tgacgtgatc gcattggacg ggaaagccag 7560  
 ctgataagcg ggcccagacag ttgaactggg gacgggccg ccatggccga agcacgcatt 7620  
 gaagagaagg gccatggtca ttctcgagaa ctgataactt gactgcagat aacgttttac 7680  
 tcgatactcc cactaatctt ttcgattctg tgctcccca catgtccaga gctccgaact 7740  
 gtccgactac gtgcagctgt ctccctggaa atgcctatca gggttactac ggctcctctg 7800  
 gcacagggaa tatattcagc acttatcaac ctcaagccgt tttggaactc gtctgtctt 7860

tctgctagac caatagcaac agtctcttcg cccaagagta ttataatcca cacatcgaac 7920  
ctctcccccc aaatgcttcc actgggagtt agtctacgaa gtagggagga atatcgctct 7980  
aatcccaagt agaccgtagg agggttggac tccaagaag gcctgcccac agtgcccagg 8040  
taagcataca atggtgacaa aaagttcttg caatgagttt tcgccagttc tgcgggcagt 8100  
tagagaggat atacctcaaa ggcccaggac tcaagagccc atagaatacg ccgaatatgc 8160  
catacgcgaa gagcccacag gttacttgaa tgattactag aggctacaga tcgttaacat 8220  
tcccacaaac caggaccggg gtagcgaata ccgcgtttgc ccgtggcttc gagatctgga 8280  
ttccttatct gatctccctt gtcacgggtg catcgaccac atggaccag gacaagctga 8340  
ccccagaggc ttggagcgtg ggggtgtgata ctatcttcga ctgctccagg tttcgtgagt 8400  
taactagtgt cgaatgagat tcaaggcata tatttctaata tacaatccag cccaatcca 8460  
agcgtttcct tgacatccat gacgggatta agtcgatagg cggctgttga ggtgaaccat 8520  
gcagaccctt acctatactt cgtattcccg ccggtagcga ggcaagatac cagtctagaa 8580  
cgagatttgc gggcaaagca cactgagaca agattggcga gactactata cagatgcatt 8640  
gcttcccaac tgtaactgaa ctaactctgc attaatataa gtcgttccga gcacctactc 8700  
aagcagggaa aaatatataa cgcaaaaagt atgaccata ctgcagatgg gtattggctt 8760  
caaaagcact cagcaaagag aaatcgggtt tgaataggtg atttccatgc actgtgcatc 8820  
ccaagctcac cggcgcattg aacgaaacag agaaaggagt agagggggta tatggtatcc 8880  
gaaggttcag aaatgtcgag tatatcgatt ggcgtcctt gatagtcgat gtcttgcaga 8940  
acggaagggtg gacatgttca gcgagccaag tcgtcacagt tctacacaca tgggaaccat 9000  
tctgcttgaa catatgccag gccgttctgc ccgcatccag ctcaatggca cccagataag 9060  
accagacacc gaaaataagc aataggccga taacggctct gcagctcacg aggagaattt 9120  
gcgagtgatc ttggcaatga ctgaacaagc caatgtcagc ccatagctca atcaccatat 9180  
tcttaagaca gacagatacg taccatgcag actgacaaca gagaagatg 9229

<210> 5035  
<211> 6380  
<212> DNA  
<213> *Aspergillus nidulans*  
<400> 5035

aacataagga tcactaggaa gagaactcag gataagctga actgcccacg ataatactcc 60  
 taatagacca agtcggggccg aagccggctc acgcttatta gtttcttggt catcctttat 120  
 tttcccagtt cgttattctc gttcagtggt acttttaaaa actctctttt ccaaccagtc 180  
 tggggatggc tccaagttac tgcgtctaga gtctcgaacg ttgtcctgct cttgctccct 240  
 catacagctc agccagggtg cgagcgtgg ataaattatg taggtctaaa tctcctgtct 300  
 cagtaatgtc tcaccacttc cccttgtcga cgattgtgct tgtgcttggt ttagctgggt 360  
 ttgtttgtgt gctgcagctc tggtttgat acttgaacct gtctcatgct ttcactctgc 420  
 cttttctgca tctgactgtc tgtcaattct tctgccaatg ttgttattcg ctctcgtgtg 480  
 tcaggtcacg gaacccatct attagtcgc ataccctcc taaatacgaa gggctctacg 540  
 aagtagacgc ccctcgtcgt gtccggcgac tgaccagctc tacaccagtg aaacgactca 600  
 gaaacgccat attgttattg cattgggtctt tgtgtctttg agacgatagg gcttcgctat 660  
 tcgaatctca tttcgggctt cagaaacagc acagcctcaa gtatctcgtc cattggcgcc 720  
 tctcagcaca ttggggccgaa ctcggtgata agcagttcaa tcaccaagtc tgtccgactc 780  
 cctcgttctc tcgaaaccga actctgatta cagcatctat caccgcggtc gtgcttcttg 840  
 tgtttgctgc gagaacaagt agcctttacg caaaaatcac aggtatatct tgttctagta 900  
 gccaccgagc acagaacgct gaggccttg agacaaatca cacaccaact cagaaaatta 960  
 gagggcagaa aaaattcccc ggcacctctc tcagtatggc acataactcg tctagtatga 1020  
 ttgactgcag gctctctgtc actcgttggt ccagttcgaa ctaaaactaa cctgggacag 1080  
 actacagctg gcaacaccga tcaccacagc ctcttcaccc aactacaatg gctatggaac 1140  
 aacaaagttt tcacagctc catggcctgc cttcgcatcc aggataccct gcaggatcgc 1200  
 ggtaccctcc gcaccatccg tccgcatccg gctactacca acccggaacca ccttcacccc 1260  
 aatatctcta ttgcagcat tcaggtgtat gacaaaaccg ccatcatcct agaaggtatt 1320  
 tctgacaat ggctcacctg agtgatctcg tgagtaagt actaacgagc aatttgacaa 1380  
 gcgcctctat accatactcg ctgagcaata ctacgcaat tcccaccagc tctccacaaa 1440  
 tgcaagaaca tctgtttaca tcatcgtgag tccaatcag cagagattac tgggaacgta 1500  
 taactaatat ccagagttag tccgccatca tatatgatca atcagtcgga atattatctc 1560  
 gcccaaggct cttcaatatc gtaggtgcct tttccatatc taaccttcta caacggcact 1620

aacgttataa agcgccagtc taaataccgg atcggtggcc actagccctc aaccacaacc 1680  
 tcttgtgtcc ccaggaacag ttactcgtc acccgattct gcgccccttc caacaaaccc 1740  
 accgccatat cgagttttac agagtccaaa gaagccaagg tgttttgatc acggatgtaa 1800  
 tggccgcgag ttctcaacct tcagcaatct tctgcgtcac caaagagaga agtcaggcgt 1860  
 tgtggcgaaa gcagagtgtc caagctgtgg cgctgtcttc acgcgtacta ctgcaagaaa 1920  
 tatccacgtt gctcagggt aatgcaaggc gtccggaaga gatacatcca gtcgttagaa 1980  
 cgcgatgagt caagctggaa accagaaaag aatattatca ctagagggca cccactacga 2040  
 atcatgtgcc ctatacagac gaacaaccgc tccaatctca ttaccctcag tttataggac 2100  
 cagtcttccg cggaccgcta cctttatgtc aagtggagta ctactctttt taagggaagc 2160  
 atcaggaact catccttctt tgcagtgcg gcatattcgg tgtacattta ggactgggaa 2220  
 aggataacca tggcgcaggg ctattcaggc attggtgtta ttgggtaacc attttgaatt 2280  
 agaattcttc agaccattct tgctgggata agcccagtggt ctgcttggtt acccattttt 2340  
 tatttgtact cggtaacttt gcatattatt gcataatacc ccaacggtac tctccgtata 2400  
 ttgtttagcc ttggtgtcgc tgctcagaag atgctccac tttggcatta ttttaagacac 2460  
 attattttat ctgatcaaac ccccgatcta gattgagttg aagagctgcg gttcgtccag 2520  
 aatgtataaa ttgtgtacga ctagagactt ttagtaacac attgacctgc acctacctct 2580  
 cattccaaat taatctagca gcgctcaaga ggtgtgatcc tatagcatgc cttatgtatg 2640  
 aggaagtagg agtggaaagt atgataatta ttcgtacagt gggcaggtgc agctacagct 2700  
 gctgccaaaa ggttccatct gaccgtaaaa tatatctgta cgttgtcttt gcctccttac 2760  
 ttcttccaga acacagcctt acagccttaa ctcttctggg aagtctcccc tttttgaacc 2820  
 tgtaagaaat ttatcttcta ctccaacat ccgcgcctcc tccctgagct gcatttatta 2880  
 gagatgaatt gaagtgtttt gtttagcatc ctagtatacg tagtagttga gatggactgc 2940  
 ttacgtcaca gatccagatc acctgacaca gtgtgtcatc agagaccacg attgagacac 3000  
 catcaaacga cgataacttg tgactcattc ttcacaatgc catttctctt ttgatcgctt 3060  
 cctttctga atgtgtgtga cggttcctcc tgataaaaca acttaatcat cggcagatat 3120  
 tgctcacact cactcttgtt tcgagctcaa tctcagactg tctacttcgg cctcaaagat 3180  
 gactctatac caaaaacata gcatacgtga agaatttaga cactgccgac atacatctcg 3240

actgatattc tgcgtacgta aaggtacgcg gatacttggt tgaaactgat acggccgcat 3300  
 atctttctgc gaataaatca atatcggtgc acgctctcct tcggtagacg tgtctttact 3360  
 tgacacagta tggcctctgt ttctacttac gatccggacc cccctagggg gtcttccct 3420  
 tggctacct caggatcttc aaccccccaa gtgggtatag ttggcaatcg aaacacggcc 3480  
 gctcgacccc gctccagcac tagcttgat agtgcagggc atgatttctt ttctgattat 3540  
 gggatctcta agctggagcc agaaccgcaa gaaggtccca cagagtacaa attacatctt 3600  
 ctcttgcgcc ctggcgctcc ctatacttct atttctacgg gccaccttgt ggggtgggtct 3660  
 tatcattccc gtgcaagctt gtctacatcc ggccccgag ccgcagcatc ctcaactgag 3720  
 gagccgagct tgagattgcc tcagagccgc tccatagata gccgccagca acgcctgcag 3780  
 cagttgacaa ctacagctact atggcgcttg cagcaatcgt cgccattcca ttcttctacg 3840  
 acggccaacc tagtgcttcc agttctaccg gaagcaacgc ccagactggg cgcgacttca 3900  
 aaaccgtcac gccttcttcc tggccttgag gaaagccaag gtgctctcta cgaaattggg 3960  
 gttgcggtg acgggacatt tgtagggctt attcatgacg aactagagga gagtttgtcc 4020  
 aatctacaag ccatggctgc cagtttgggt tgcaaagttg aacttctccg cagagtagtc 4080  
 gtcggcaatt gcgaatgggt cgaggatcaa ggatccgaag aattaaatcc gggtaaagtg 4140  
 catactgaga acctctgggt tgcggaggcg ctggttaagcc cagactggga ctactatcgt 4200  
 gcagagccat gtgtgaccga accacttgag aagctgtcca aatcggaact cgctccaaat 4260  
 ccaatgtcgg aagggtacgt ttctagcact agtcagatca gagtatctat tgcagggcc 4320  
 aatactgttg gcaaatctc ctttcttgggt acattaacgt catctgtctt ggacaatggg 4380  
 aggggaacga gcagattggg cctattaaaa cacaggcacg aaatctcatc cgggtgtaacg 4440  
 agctctgttg cgcacgagct tataggatac actccaacgc catccacaga cggctttgat 4500  
 gtggtcaact atgcctcagg gaacgttgca gcctgggacg atattcacgc cgctccaag 4560  
 ggcggtcgtc tagcgtttgt ctccgacctc cccggctcag tgcgatactt gaaatctaca 4620  
 ttacggggac ttgtcagctg ggctcctcac ttcgtgttcc tctgcattgc tgccatttgt 4680  
 gaggaagagg tttcttcaag gccaggcccc gattctgcag aacaagcgat ggacatcaat 4740  
 ctagctttat cgtatctgga gctctgcata aaactgggca tcccggttgt tgtggttatt 4800  
 acgaagatgg acctcgctc ccgaggtggc ctgaggaata ttctcgcaa agtggttatct 4860

gcattgaagg tctccggcaa gaagccagcc atgctccctg tccaatccaa ttcagttgag 4920  
gagggcgtag acctacagca tatcaactcg gcagaagcgg aagaagtgag gaaactcata 4980  
gccgcaacgc atgattggac tgcaacagtg cctattgtac tcacgagtgc tgttgatggc 5040  
tcaggcatag acaagcttca tgccttctt cggaatctac ctattccttc caggccaccc 5100  
gtaagggtaca tcagcatgcc gaagtcattg ccagctcccc aacacccatc gaatgtcttc 5160  
gacgtcgacg aagtttttgc aattcctccc tcaaaggctt attcagaaca acgtcaacag 5220  
aaccccggtg tggctctctg tggtttggtc cgttacggct ctatttccgt tggatgatgag 5280  
ctagtcacgc ggctgtcac aatcaacact gcgctggaaa acggaaattg tccaggggct 5340  
caaaggcttg gttcagaccg ccatttttgc caacatggct cttacagaag tcggccaccg 5400  
tccggagaat tctcctctc attcctccag agctcataca caggaaagtc tgcttcaact 5460  
gtccaagcac tttggcagca tgttcgagtt gttagcgtcc gcaatcttcg actttcagtc 5520  
cagaagttga ccgaagacca agtaggcacc attggaatcg agcctctatg cgccaccctt 5580  
tccgagcaac ctccgcgctt aggcaagatt cgaaaagggt cgattctagc cagtgaacca 5640  
ttgtcttctg gcacttgctc gttgttgccc attaccgggt tcgtagctag tttctcgtcc 5700  
agcgaattct catcttctt gtctcccca gttttgctgg gtggcaatgc aatagcgtat 5760  
attgcgaacg ttcgaacaac agtgaaactg acctgtttgg cccttgctgg tgatgaaatc 5820  
atctctctgc ccccatcacc tacagaattg gagtttttca gctttgacgc agactcgcca 5880  
agcaagccga atgtgaataa ggtggtcagc tcctctgaca ccacaatgca tggactatc 5940  
gatataacgt tctcgtttgt tgtctcaact gaatgggttg aagtgggatc taagggtattt 6000  
ataatgccgg gggcatcagc tgcgttggct tctgcagaag gctctagctc accttcgggc 6060  
ttggaaggat tcgttggtca tgttcgcgaa gtaatttacg ctgaggaagg tggaatctga 6120  
tagtttttga aatatagtag cgttctatat tgctgggttat ttatttttca ggtcacatcc 6180  
gctaattcat acggaacgat ctaatcatat acttaagggt agtatagtag gtacagtagt 6240  
atagagatgt ggcacgtgcg ccgccccac tacggtttagc ccatttaaag cccgccgtga 6300  
caagacttcc tgcacagcaa ccgtcaccaa ggaacttaca tcctctgcga ttccttatag 6360  
attgatctgc tgctgcatag 6380

<210> 5036

<211> 5519  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 5036

```

gtcggggtgt attgaactgg tggcggcgcg ttgggggtctt tgactgtata cagcatcgca 60
tcaaaaagat gaggcccgac gacaatgtta cacggccga ctttagacat cgactccttg 120
ggaggatttt tgccttcaag ctgctccctt ttcgtctttt tcggcttggt ccaatagcgc 180
tcgaggatac cgtcgctcag ccatttcttc ttcgaacgtt ctaggaggagc aagaagaacc 240
gcgctatcgt agtattagcc cgaccaactg ttcacagtat ataccatttc cacaatgtaa 300
ggagttatac ctttccgcga ttgattgata ctctttaagg gagaggtccg cgggctgcgg 360
cgaagggagg accgggaggg gctccccatc cttgaccttc gtcgaaatag gtggtacgac 420
ggtttctgag gcaggattcg ctgtcggagc tggcgatgag gcagtagcgg gtgtggaagc 480
ctttctcctt gtcgctgtt gagattgtgc tggtgacgat gctcgcgtgg tcgcttcgga 540
gaccgcgcgc ttggccgcag gttcgcgacg ttcacggcg gagagccggc gtttctcagc 600
catggactct attacgaggg gtagtcaata gttatgctgg tgcgaatacc cctcgaaagg 660
atgaagagca tgtcgtagat gaggagtgat ggagagagcc gcaaagttaa agagatccgc 720
cgagacaaaa ggatggtaaa cggcaagcaa atcacaagtg tatgcctgag gcataaaggc 780
accaaccgta tcaattcctg ctgcactatc cttatctcca tttccatctc cggctcgagc 840
ttcagcccaa tgtttatcgt ttcagttgat catcttgac tagcggttca tttgctctgt 900
atacttgaat ataacacgta cttctcccat caaggacagc ttgacgcagt ttacgttaca 960
tcacctttct tcttgtcgaa ttgtcctcaa gtatgtacat gccaatgctg accatgaata 1020
actggactta attgcaaagt caagtcagaa tggctgcttt tttgtcgaat tcataagctt 1080
actctatata agaaacctgt cgagcatggt tgagttcaac cctctactgc gaaaagccta 1140
ctggtcttta gcagctgctg gccttatata tgtgggcatt gtctgttccc tgacgtaccc 1200
agttgtccag agattgtatg gtggcatgca ccgagcttcc tatgtccaaa gtaaaatatg 1260
tgcagctaac tggcatatct gccggaaaca gcgcactcta tgcaacaag ataaaccccg 1320
ccctatggga agacgtcaac ttggtggaag cgttcggttt cttgagtatg tcgccggttc 1380
tatcataaag aagaataccc aagactgagc ttgatcccag agacacaagt ccagccattc 1440

```

catctgggtca cccctgataa cgaaaccatc tatggctggc acctcctacc tttgcacctt 1500  
tgtcgagaac atgacgggga gctggatttg gacgagccca ctggccccgc ggatgattat 1560  
accctgactc cggcattcag actcctggcc aatgatctaa acgccagggt tgtcgtgagc 1620  
tgtaagtctc gaagctgaag tcaggggtca gcagcaacta actaccgcgc cttagttcac 1680  
ggtaacgcgg ctacactagg atctgctcaa cggccagaga catatcgtat gcttctcggc 1740  
ctctcaacct ctacaaacct catccatgtc ttcgcaatcg actaccgcgg attcggaatg 1800  
tccacgggga caccctcaga ggagggcctc atcaccgacg gcgtaacgct cctcaacttc 1860  
ctcacatcag ccccgctcaa catctcccc tcacggattg ctatcgtggg ccagagcctc 1920  
ggaacagccg tcagtgccgc agtggcagag cgcttcgctt ttgggtcgcc tgatccaacc 1980  
gccatccaac cagccctcac agaccctgaa ccctttgctg gcataattct ccttgcattc 2040  
ttcagcaatc taccctaatg gattgaatca tacagcctca aggggattac gcctccatt 2100  
ctctccccac tacgcggtga cctcgcac caaaactggg ccaggcgcca tattctcgac 2160  
acctgggata cagccggacg agtcgcaagg ctgacagggt tgaactgcag cctagttcaa 2220  
gctaaccctg cttttgcaga gaaggggtca gatctggcta tcatccatgc taaaaatgat 2280  
gtggagattc cctggtttga ggggcggcgg gtctgggcag ctgcaacggg tcaactgcag 2340  
caatattctc ctggtgttct gacatatgag aaaagggatg ctgataatgg gccgaatgag 2400  
gttcttattt gggaaaatag atctggcaag ggtccagggg cgtcaagag ggtgcgatgg 2460  
gaacgagttg cgtatggagg tatgtttctc ttctttttgg cgtcatcgtg caatgacaac 2520  
ggtaacatat ttggcaggcc acaatcgtgt cgctacgttc tcgaccgcgc ctctcgcggt 2580  
gctaagagca tttgcggagt aggtccatcg ttggttatac ctcggtccg cgatccagaa 2640  
aatttagggc taagaatttg agcatctaca aatattagcg aagatctact cgtcttgaga 2700  
ggagtatagg ttcgtgagat tagtatatac aaatgtaaca taaatgacct tgcttttata 2760  
ctaaactgtc gccgaaaaaa agccaaatg ggcaccgata ctgttaaaac atgagacgaa 2820  
gacaagccca cagggtcagt ctatcatgaa atagataata catgattcag aaatcggaga 2880  
gagattcatc aaacgccttt acctgatatc ccttgggtgag agacaagggg cgtatattgca 2940  
tacaaaagcc agggcaatac cagcttattt cttatgcctg tcagcctggg cctggaggta 3000  
cttcttgaca agttctctcc tatagaggca gaaggtagc ataaacataa cgttagcgga 3060

gaggggtcaaa catactgctc ctgaggtggt gctttttcgt agtgggtgaa ctccatggtg 3120  
 tactcgccct taccctgagt cgcagcacgg agatgagaac tgaaaccaa catgccgttc 3180  
 agactgcagt cggcgtagac ggtgaactca tcgacaccaa cttcggaatc gttaatggta 3240  
 gcaccgcgct tggtcagaag accgataaca tcaccctgga actcagcagg ggcagtgacc 3300  
 acagtcttca tcataggctc gaggaacggcg ggggtttccc tcttggaag ctttacggaa 3360  
 agcttgctgg gtggcggttct tgaaggccat ttcagacgaa tctgtcatgt gtgtagcacc 3420  
 gtcattgatg accatcttgg ttccgagcac cttgtgacca atgagtggac ctttctcaca 3480  
 agagagatgg aaaccctttt cacaggcgaa gatgaacttc tcggaaatac ttccaccaac 3540  
 aatctgttct tcaaactggt tctcctcaag tttaccggta ggctccagcc atccaacaac 3600  
 gcgggcataa tctccaggac ctcccgattg ctttttgagc agatggtcga actcaacacg 3660  
 ctggctaata gtttctcggg aagcgacctg aggaggaccg gtctcacagt cgacacggta 3720  
 ctcacggcgc atgcgctcaa cataaatatc caaatgaagc tcaccatac cggagataag 3780  
 ggtttgctca ctctctgggt cgaacgagac acggaacgta gggctcttctc gctggaaacg 3840  
 ggccatggct ttagagaagt tggcgtaatc cttgctgtgc ttgggcttga tagagagcga 3900  
 aatgaccggt tccggaacaa acattgaaga catggtgtag ccgagttggc catcggtgaa 3960  
 agagtcacca gaggcacatt caacacaaaa cacagcaca atctcaccag cccaatctc 4020  
 agacacgtcc tccatttcat tagagtgcac gcggacaatg cgaggaatcc ggaccttctt 4080  
 gtctgtacgg gcgttgaaga cgtaggaacc cttccggagg gttccctggt acacacgaat 4140  
 gtaggtcaac tgtccaaagc tgctctcttc cagtttgaag gcaagacaga ccaaaggcaa 4200  
 ggcgttgtaa ggaacaagct taacctgagc ctcgttgccg ttcttgtaa gggcggtggt 4260  
 ttgcacctca gatgggttgg ggagatagtc gataacaccg tccaacatcg gctgaaccga 4320  
 cttgttcgcc agcgcagaac ccataaagac tggggtgaac ttcaaaccga tggctgccccg 4380  
 gcgaatagcg tcttgatatt gcttctcggg gggctctctc tcgttcaaaa agatttccgc 4440  
 catgtcatcg tcaacgtccg ccagggtctc gatgagcatt cttctcctct cctctgcgag 4500  
 ttctctgacc ttttccggga ttcatcttt gacgacgata ttctcacctg tgetaccttg 4560  
 gttgtagata gccttcatgc gaaccaagtc aacgacaccc tcaaactcgt cttcagctcc 4620  
 aatgggaacc tgaacagctg ccgcaggag cttgagcttg gtgttgatct ggtcgacaga 4680

cttgaatgga ttctgcaccca tacggtccat cttgttcacg aaggaaattc gggggacatt 4740  
 gtagcgtctc atctgtcgat caacggtgat tgtctgcat tgaacaccgg agacagcgca 4800  
 gagaatcatg acggcaccgt cgagaacgag cagcgctctt tccacctcga tggatgaagtc 4860  
 gatatgtcca ggcgtatcaa tcaagttcat atgatacttc tgctccttgc catcctcatt 4920  
 cttcttgacc cagtcacaga atgtagcagc cgactggatg gtgatacctt tttcacgttc 4980  
 caggtccatt gaatccatct tgcgtccgac actgtcacgg cctcgaacct cgtgaattgc 5040  
 cttaatcagg cctgtgtaga agagaactct ctcggtacat gtcgtcttac cactgtcaat 5100  
 gtgcgcctgc aggaaaacga ttagttatcc aaacgcgctt ctaagacgga aaagagcaac 5160  
 atacagcgat accgatattt cgaactcgag ataactctc agcctctaca ggatcgagat 5220  
 tctcaatgat tgctcctgc gataaagaat ccggtgtctg agcgggtgcc tccaagctgg 5280  
 tcaaagcaga aaaggcgtca gtgaacagaa gacggattaa ttgagaaaag acaacgagat 5340  
 gcttacacag ctgctgcagt accggaggca ttcctcgttt gctgataacg ccggttcaat 5400  
 actgactgat ggaccggagt tgcggaacgg agagcggccg tcgacgcgca tcgtgcggta 5460  
 aggaaggcct gagactgaaa tctgacagga gtctgtgtca agccagagac agcacggtg 5519

<210> 5037  
 <211> 3687  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5037

gtaaacgcgc tcaatcattc ggccgacatg ccgcaccgtt aaaaataaat cggctgcctc 60  
 ggggggtgtt aggtcggaga cacgggggac gactcggcgc ggggagacta ggacatggcc 120  
 gggaagaata ggcttcagat ttacaagggc aaagcttaga ggcgtcgtgt ggaagacctg 180  
 ttgacaaaaa ctaaaagtta gacggtcgta cagaggagag ttggggtagg gtgaaacgga 240  
 cctgtggggg gacgaggaag gggccgaaat gaatcgggag gcctttcggg agaggcatgg 300  
 atggttctga ggaaggatcg gtgaacatct atctaattga tattcgtgaa cagatatgag 360  
 agattaagtt gcaggcgtga actttctaata gcggagaaaa gtttaggtgt tgggtgggtt 420  
 gaggaggtga tgcgggagaa ggtggaaaag gcggaggaac tatcccataa gattaccagc 480  
 cctccacttg ttgggtgatt gtacaacaga tatgggtatc atcattaatt ctgtagaaaa 540

gtatattaça tgaatataaa tcttgggacg accaaaaaca tcaaccacct aatggaaagc 600  
 gcatgttgca atcgtagttt gagcgccgtt cgtcacatta aaggataatt tggtttccac 660  
 atgtcagcaa tcagtctttt ttggcaggct cctcttcctt ctgtcttgat tcggaattcg 720  
 tatccgagtc agtttctggc tctgactccg actttgtgac tgccgggtca gattcgggaag 780  
 tggcccttg cttcgctgt tccggagcta cagcagggtga ttcttcttta gcgatgtccg 840  
 aatgcggatt ctcgctccagt tcttgtgctg ctgaagacgc ctcagctgcc tccgaggcct 900  
 cgtcttccgg ctcaacctcg gcaacgggtga tctgagattc ggcaactctga gtaggagagt 960  
 cgacaggttc acccggcgat ccgctagaag gttcagaagg caactgctgt tgaggtaacg 1020  
 ctacctcaa tggcggttgc tgtggttgc gtggttgctc ttcgttgctc tcgacgctct 1080  
 cgctgattgt tgtaacgcgc gacccgatgg aagggtctaga cttgtgtcgt cgagtgggtg 1140  
 caccagtgt tatcgacgca ggctcaacct gatctagagg aggtagtaat gattcattgt 1200  
 ccttgcgcaa gattgtcaat cgacgccgt caccctgttc ctgcacatgc tgtggttgat 1260  
 gcgcgtcatc cccctccgt tcaggaggca cagtatagtt gtcctccgga ataagggtgg 1320  
 aaacgtcgca aacagttttg aaaaacatat aaagtccatc atgacctct acctgccaga 1380  
 atacttctcg gtgctgaaac caagcgtgcg cgaagatgcg atatagcctc cggaagatat 1440  
 tggtgagggtg cctcaggcct gcctgcggtc cgctccaga ctccgatccc agggtgagcc 1500  
 tgcttgaaa gtgttttggg gacgtaagaa tattggtggc ccaatcgaga gtgtgacagc 1560  
 agtagtcaat ggcgagcag gccttgggtg gatcatgaac ggcgcaaagg tactgccatt 1620  
 cggacgctcg catctcgggg caagtctgtg cggagcaggg agggttttcc gcaaagaatg 1680  
 cgatgatgag attgttaact ttcattggtta agaagcggca gagttcgtac agccatagtg 1740  
 atcgtcaac accttccggc ggctccgcaa gctggcgggc aacctctcgt tgaattggaa 1800  
 ctactgtgtc agagtctcgc ggacgctgt aatggttgta gagcgcttc agatgctctt 1860  
 ggagttggaa aggagagtca agctgtacag aagcacatcc atgtcagtag gctaggggtt 1920  
 cccaggcga ttgggtaccg acttctttac tgacctgca aagggggatt agcggaggac 1980  
 cagcggccat ctcgctgctt ttcgagccc gtctgaccc ccttgtaggt ccatcatctg 2040  
 tgctgacga aacacccaaa agttgtaaat ccgcctctgc gccgaatgac tctcccacag 2100  
 agggtgactt gggccaatc tgcacctctg tgaacggagg aggactgggc agtcgtggag 2160

agctcgacgg ggatactgcc gcagtagtca tagtcaggaa ggtgaatttg ggagaaatat 2220  
 attaaagcga gtgacggaag gacaaagagc aaggggggga gagcacggca gagtgaagca 2280  
 gcagacagac cggacggaac cagccttctc caactgaatg gagctagctc cctaggtgag 2340  
 taaagataaa ctcggaact gccggcggt gaacgacca tgaccctcac agccctagcc 2400  
 ctatctcctt cccctcttgg taacgtcatt ggtttgccca gatctaggtg aggtcaagaa 2460  
 ctgcccggct tttgtgtact ttgtgtgtgc agacacagta gcacactttt caatattgta 2520  
 gtggccatct cattgcctca aaatggaaga cgatgatgct cccctgatt tagtggtatg 2580  
 ttcccagctc ccaaagtctg agcttcagtc atcgtctgcg gaactgcccc cgcagcaacg 2640  
 cgtgcctatt aactgggtga cgggtacgaa gagcactctg tagatccatt catatcttgg 2700  
 caggtgccac attatgcaat gactgacacc gtgctctgtc aggctatctg ggcgccggta 2760  
 aaacgacgct gctcaactac atcctcagtg agaagcatgg caagaagatc gctgtgataa 2820  
 tgaacggtat atgccatatg caacagctgt ctatacaggc ttcttgctaa catgaaatta 2880  
 gaattcgggtg actgtaagta tccaagcgt taagccgact ggcaaaactca aactcatatt 2940  
 ggcagcaacg gacatcgaaa aacctatgac agtcaaccaa gacggacaag aggtaaccga 3000  
 atggctcgaa gtcggaaaacg gctgcatctg ctgttcagtg aagtaagttt ccatatctgt 3060  
 ccctagacga atacgcagtg gtgtttacat caggttgtag agactccggg gtaatggcca 3120  
 tgcagtctct catggaacgc cgcggtacat tcgactacat tctgctcgaa accacaggtc 3180  
 tggcagaccc cggaaatatt gctccgatct tctgggtaga cgacaacctc ggcagctcca 3240  
 tctacctga cggaattgtc actctcgtcg acgctaagaa catcctccac ctgcttgacg 3300  
 aacctacgcc ggaggaaaca gtggccgtgg agaacagcaa agacggttct gatcacgacc 3360  
 acgatcacgc tcaactctgga ccagtctgt ccatggcaca tatgcagatc tcccacggcg 3420  
 acgtgatcat ccttaataag acggaccttg tcacagcgga agagctagag catgtccggg 3480  
 acagagtaac agccataaac agcgcgcga agatccatgt cacagatcat agccgcacgc 3540  
 ctcagatcga ggggtgtagtc ctggatctac atgcgtacga tcatctcgat agtctggatt 3600  
 tcagccagaa gggccacagt catattgatc cggtagctcc atccagtaac atgatacaca 3660  
 caagagacta atatatacaa taagtct 3687

<210> 5038

<211> 4001  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5038

```

taacctcgtg ttctgggggtc tctcgtcaat cgggatctag ctggagactg gaccgcgact 60
ccttttcgcc cgttacgata tgtttcagac cgggtgcgct ccaatccgac ctatccaccg 120
ctgacctcga aacgtctctc gcattcttcag aaaacggcct gattccaccg gataatccac 180
tggtatacgt cgcacctcag cacaaccacc agcatcagag accagccgca tctcagatct 240
acaacggcgc gatcgtaact actggttcct aggcgtgggt ccaccaggcg aattcgtcgt 300
cagtttcgtc agtttcgacc agggcccata gctccacgct cgacttctct tcttttctcg 360
catggtgtct gtttgatcca gcctgagcag caatgggttc gactcagttt gggaatttcg 420
acgtgagtcg ccgccaaatc cactttcggc atccgtagag aatagtactg acgcatttta 480
tttcttgtcg gacaggattt ttgtcgcgat tccacgcttc cagtctgcaa tgtatgttgc 540
tctcgtccga tcttggcgga ttgcgcgaaa tagccttcag cagctaacc tatctccctc 600
agctcttcgt ttcttccaat caacctccta atgagattta tggcgggtgc gctcttcgtg 660
gaattgggct cagtgcgggc cggatatctt caaatcttgg tatggcatgt tcttcggcca 720
ttagggcctc ttgctcatga aaatagggtc tatattgctc gcgttcatag ctattcttgt 780
ttcattggtt ctgatatggc gctcggaccg gaaacaagcg gcggttggcc gaaggatatga 840
ggatcgaccg acccagagga atgcgggaag ctacagaca tggacagaga aatgcagctc 900
ttcttgctgg gatacattat catcgagatt tgcgagatct tctccgtggg cggctttccc 960
ctcagaaatg atgtccgaaa ggttcgttcc ccgctgttta ttaaaattca acggtctaata 1020
atcctttagg ggcttttcgg ctgctcacgt cgctgcgata actatgacat gttgatcctc 1080
ctcttgaatg cgctagtcgg ttccaattc ctcatgatg gaactcctgc ttcaatcggg 1140
cttttcttgt tttccggttt gattttcttc attggtacgg gatacattgc cctggacaca 1200
gctttcgatt ggacgggcga gtttgcgaca aacgaaggca acggctatcg gaatatcgcc 1260
ctttatgtac tttaccagct cttccccctc atctgtctgg tcgcgttctt ctttctggaa 1320
acgttcctcg tcgtccgtat cctgggcgag cttcgcccaa tgcgtgcgta tatccctcaa 1380
gctggtttct agtctgggtt gactgactgt ctgcagtgt tctctccgca gccgggtctgc 1440

```

tggttcgcat cggacaaata ttcaactatg tcatcagcac tcacctctgc caggccacag 1500  
 acggaaagat caacggcgcc ctgttcgaga cgctcttcac cctgggtctca gttgtcatgg 1560  
 tctggatctt ctggagtagc atcacagaag acgactggcc gacgccaatg tcacagccaa 1620  
 tgccgggata caactagtag ggcccagcta acaaacataa aagcataaaa aaaaatcagt 1680  
 ccgaccagcc taacagctat gggagagtcc ttctctcgcc cgcccagta cagtaccatc 1740  
 gcccagcgat cctttcgcgc aatcttttga taccctcaac tgcaactatg ctaatcacag 1800  
 aaggaccggc tagtccgact tcgacctcaa taatctaaac cccagcatgc tcctcttttt 1860  
 ttctcgatgt cccccgttca tgttcccacg attgattgtc ttggatgtgc caatgtgcca 1920  
 atgtgcctct gtcgaccacg atatctttgc cattttgatt accataaccg gaagctacgc 1980  
 catgagctgc gttgcagttt tcggagtaag gagatgagtt ccttcagac tccataccga 2040  
 gtttatatct actgtacgtt tttagcagct tttcttctag atacctatct cgcgatgtac 2100  
 gtaatagtga ctcaagtttt tgataaataa ccaatcttct gcattttttg atcttgatgg 2160  
 ctttcgctgt gctatgactc ttcgatgtcg aaacatgtac tccaagtagg taggggtgat 2220  
 ctacgaacat accctcctga ctaggggttat taagcataat cattaccag gctccggcgt 2280  
 actgggagcg ctaacctgtt attgtcagta ggtggggagt cctcgagcac tgcccatgag 2340  
 gaaaacgaaa tagtgagagg gactgtcatc tgcttcgcca aagattaact aagaggcaga 2400  
 ccataagtat ataaccacag tctatacgag gcatggatgc gccgggatag atgcccctga 2460  
 tgcaaataag attgctacgt ggcacttcga agatataatca tgcgaaacagt atatataatg 2520  
 gtatgcacac gcaaagtccg gatgcatgcc aggcaacaga atcatttgaa ccgataaata 2580  
 tggcaaggag aaaaggtata atatagtccc gccaaaagca agaagaatca atatccacgc 2640  
 ctatgcaaaa cagaacaaga agcaagagaa gtaaacctca aaaagctcag agtcgtagcc 2700  
 ctgtcaacac agattatata cgccccttga catcaacgca aggcagcgtc cattcccgc 2760  
 tccaattag actccttcca ccacttcgt caaagcccgt caattcctcc gacggctccg 2820  
 aagcgccctg gtaacctccc acaagccgtc ttgctgtctc gtcaacggcc gcacccgcaa 2880  
 gagtttttgc agtgcattc agggtttcaa aaatgtatcc tgctagtac tcgctttccg 2940  
 cgccttgggc gggggcatcg tagggcgtat accggggggc gaaccagtca gcgcgaaggt 3000  
 tgaggaagca tcggtcggac cagttgcagg ttgaggcaaa gaggatgacg agcagcgcg 3060

agcagtaaat acacggtcgg tggagaatat aggtaagggg aacgaaggaa atgaggaaga 3120  
 gcggggagggc gttggttggg atgaagagca gggggagcca gctggatttt gtcagttgcg 3180  
 tttccttcat ggcggctatt tcaataaatg atatttgcag ggaggccata tgattgctta 3240  
 cctcctaagg cagaacatgt tgagcgagtc gatcagttga tcctggaact ggacgatata 3300  
 ctgagtacag cagaagggaa aaccgctgat gttgccagtt tcgaaagatc aggattcagg 3360  
 agaacgctga caaaagagaa ttacataga acagattcag aaagtgaatg gaatcatata 3420  
 aacaaagtgc ccttagcagg ccatttttag tcgcaaatac taatcctttg aatttttttc 3480  
 gaatccgggg gacaaagacg ggatagtgat gtagatagtt gattcttcac tcattgcggg 3540  
 atcaatggac gccactgtaa attaccgtta ccgtatgac agcctcgctc cagccacaac 3600  
 ttgaatcttc actggcttcg ttctccgact tctccttctt cccttgctct cgcttctctg 3660  
 tataatatcc tctcctttcg cattctgctt ggtttgttcc gatgcaattg gtatttaate 3720  
 ctttagctcg tctcttcttc cactcctttt tattcgctg tatccgctga ctctcgaaag 3780  
 agagctcttg cggtaacacc gagcttagag tgtcacctgg aggtcgtctt ctttcacggc 3840  
 gagcgacaga aatgtccacc cctaatagata ttcaagctct tttggcgagc ataaggcctc 3900  
 gtccttcgcc gtcgggcact cctgcgcaga attctggcat gccgcagaca aagaattccc 3960  
 agcattaccc gcatggatac cggcctcagc acccggtca t 4001

<210> 5039  
 <211> 1894  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5039  
 tcctcagatt tgatatccaa gtttcttate atgggtgtccg ggctatgcct gccgtcgcgt 60  
 cgggatatcc atagtgagac taagatgccg ggcaatagac acatgcaatg gagcagaatt 120  
 atctcttata tccccgcgac ccagtttact ccggactttg tacgactcat agacacccccg 180  
 tagcttgccc gcagactgac tccagtctca gcccggcaag ctggagtctt cttcatggac 240  
 tccactctca catgtccaca ggctagtctt cctcaataac gactccaaaa cacacttccg 300  
 cctcccgacg gccccgtgat ctcccgctccg tgaatcattc accccgtagg attaacagtc 360  
 tagacgggga agtcttgaaa acgctagcta ggaacaaaaa aggaacgtat tggaaaacgt 420

gaggttttagc atttgcagtt cttgccgaac cagcattatg ccggcgtaga aaacgtaggg 480  
cgagcggaac cacagcacta taggtacctc tttcaaagtt catgcatgct gttatccatg 540  
tctaaccatt tcatactctg accgccatat agttatggtg aaaacacgac gcctacctga 600  
gaatttaacc agatttgaag tatcatcagc gtgaagatag tagagcacta gtgcgactaa 660  
ccaagtcgag ccgaagcttg acgctcgggt ctcagaggat ggcagctgca ggtcagaaac 720  
acgacacagg agagatctgc tgagacctgt tttatctccg ttgacatctg agtgggtgaa 780  
cggatcttcg ggacggatgg gtggatatgc ttcggttatt gctgaggttt aggttgagtc 840  
accagatctt ggtcatcgag cgcgcgtagc ctgatgcatt cgtgtgttta gtaaagaata 900  
cccctcccta gcgggaaaat acaaaagtga gtaatttgaa cgatgggaga ttggagtcac 960  
tgtgcgcata cagaaggtta aaatcccggt ggcttttagag attagcttgg ctctgcaagg 1020  
gaggtatgat accgctgcca gttagatact acaaatagtt ctgaatgaag tgtcaatatc 1080  
atatccctca gtgggagcag aacaaggaaa cgacaaaggg gcaaccatgt catgagccca 1140  
tgattttggg atcaatcaat ggggagtgga tgggtgccctg gccctgcttg accagattga 1200  
tatgggaata tattgtcact agagccagaa tgaccagaaa taagcggaat aggtaaaaag 1260  
aaaaagaaaa agaaaaaaga aaaatccctc tttctttgtc tatctccaga aacactccct 1320  
cttggctcatg tctcgatcta tatttttagct tgttacttcg gaatctgcat atgttcagct 1380  
gcttgcggtc cctactactc cctactata acatcccgcg ttacaatcag agagaacctt 1440  
aggtggcgac ttgacgagaa atttaacttt ctcacctttg ccaaagcacc tcgaaagtaa 1500  
cccttcacat tgcttctagg ccctctagta tcgtaaaattg gctttaccaaa gagtccagac 1560  
tccactgccc aactacctat taagaggccc atcggtacga gaatgtgata gagcaagttt 1620  
aagcttagaa ctatggcttg cgggcgaatg ttggtgctct gcagaagcgg tttagacgga 1680  
gcagggccac agtgccctga tattaacggt ccaaggaatg ctgctgctga gacctcggct 1740  
ggaaagtcag gcggagacga ggccgaagct gatatagaaa tgactaattt cagtatttga 1800  
tgccgtttgt ctgactatgt aacggcggct tgacatgctt gaagtcctcc caagcggaca 1860  
agataacctt tctagggttc gaagcagtcg agta 1894

<210> 5040  
<211> 4150  
<212> DNA

<213> Aspergillus nidulans

<400> 5040

ataaactggg attcgtaact gcacctgac gcgttgtctt ctgcacaatg attggcaggg 60  
ttctgggcga gatccatgta tattgcgagg ccatctcatc gtggcggttca aaaagtggag 120  
ctgaaagatt ggggagtgga cttgctcgag cacgtgctct tgaccgcagc aatcagtaac 180  
aaataaaaca cccaacgcta tccgaggctt cagctccaat acgaagcaga tcgctttacc 240  
tgcgaccccc gactccatcg aggccgaacg atgtgacgct gtcacacctg tccatgctcc 300  
tcttaatcgg gaaatcccg acgagattgg agctcccca gccatcaact tgctatcagt 360  
ctatcacgtc aagaacgccc aggccgcaa atcttactct atttgtttcc gtcaatgatt 420  
tttgtaaatt atttgcatgt gatatctgct gcgacatcca atccgaaagg gcccaatgct 480  
tcttatttcc tggaggtggt tcgataccta caccgacgca ctctcccata gccaaagagca 540  
tgccccagaa cgcagccata tctgccttca gagaaactta tgctgcctca atgaagcaac 600  
aagtcaggcc tggtcacttt atccaaagcg accgcgtttt cagcaccaat attgcgaca 660  
aaacgctgga agatgccaga aaagaccgac gggccagcat tgaattcggc tgcaaatgat 720  
ggccaatcac ctatgcgtcg gatcaaata cgaaaggact gaaatacgca gctacctggg 780  
gtggctttcg agttcgctcg aaaggccttg aacacagatt agaagacttt gagctcgcac 840  
accaccgacg aggaacttac gtcagaatag gaaacaggag tgtaccagc agaagcggtg 900  
ccattatgaa atgtttaacc tagtcgatct gataagagaa agggtttttc gcctaccagt 960  
actgtcgctg actgaagcaa ttctgattaa cctgtgcctg ggttctacaa gagtggtaaa 1020  
caactatact tgctcaacaa gcaatgcgga tcatggaaat atcatcccat taaggagttg 1080  
gatctagatc tactttacgt ttctcagatt cctgacctgc tgtgtattcc atacaagcaa 1140  
aacagtcact aagcagtcga gagccctagc agctgtcagt tgcacgttac acacctcgcg 1200  
aagattcttc tcctatgatt ctaaaccaac tgctatctct agccgctagg gatggggccg 1260  
cagaagctgt cctgctagg gtatgctcct aggcggcgat agcgtcttcg ctgcgctaata 1320  
ctgttgaggt ccatgccata tgcttcttgg accaaacctt tcgccacaaa gttcaaagat 1380  
cacgaaacta tcctacgagg attatgtcgg ccacgaaatc tacaacaatt cccccccaa 1440  
cacaggggtt ttcgtatctg cttgcaaact gcaagacgct cttacggcgc accgcatcaa 1500

acttgagaaa aaagccgcat ccacggatct ggggcgtgat aagctttacc ggcaatctga 1560  
 ttgaggacgc tcgatcccag gaactggcta aggaagccat tgtttctgat gtattcgcca 1620  
 gcttggtgag gcaactacgt tgcaccggaa cgtaccgcta acgccgcggc cgtttagccc 1680  
 acgcgagacc aatcgccaaa gccaaaaggg atttgtccag gcactattga ctaagttgcc 1740  
 caaagtatct gtgatccct atagggacta ggtgcacata agccgctgac ccagtttgag 1800  
 tatattgctg tcagggatac ctgagaaagt gctgggcagc tagtttgca aagatacagg 1860  
 ctgaggattt tgtctcctgg tatcttgaag agtgcaagta cttccgttgt gcagctggag 1920  
 gcaaagtcgg agtcggttga tagtgaacta atagagagaa ggctgtactt cgccctttcc 1980  
 tgcggttga cgggatatga gagacagtat atccctgaag acaatactgt tcaaatttat 2040  
 tgctggagtg acggtgaggt tagatctgca tgctctatta gaataaaatg gacaaatgta 2100  
 cagttcagct ttgacgttgg tcatattaaa ccagcactga aatacacaaa cgaggaacaa 2160  
 ggatataaca ccgtcctgaa aaatttcttc gccggtacgc catgctgccc aatgcctttc 2220  
 tcttttactt tctgttttt tcccttgact tgcagagatc tggttctccc acaaaggcct 2280  
 gcgctgtcc taccctagga cagtcacca tatccagttg agctgggtgt ctactagag 2340  
 gtggaaccag agttatgatt tattcgcggt tgaagattgc ctggtggaat gcaaccccg 2400  
 gtcgctaact caaacctact taaataacct atcgataact ggcatatctg cctgcggtct 2460  
 cactcttcg gataatcttg acgacttgcc cgcgcctgag cccagatac ctgcaacgg 2520  
 gatccgaaac ctggattctt ggcagctgag attccttcag acggtatctc tgcaagagct 2580  
 tgctcttctc ctgagggtt aggagcacat gttcgggaca agttcaaccg gtgtaatgtt 2640  
 cacaagtaga tctgtctct ggaaatgctc gcagattcgg ccgtggatgc cgctaagcaa 2700  
 acgaacggca gatgcggaga tgggcgtctt tgtgatgaag atgccggtat ggaaatttcc 2760  
 ctgctcatca gtgtggttga aggtacggac atgctctgtg ccaataccgc tgcgtccgg 2820  
 acagaattca atgtagattg tcccgcagtc tggctgggga tcgcggtttg agggggtcgg 2880  
 gagaggcgtg tattttgctt tcatggcttc ggtgggacgg gcttgaatct ttagcttctc 2940  
 gcggctatgg gataactcca tcagtcgtgt tcattacaca aagagcaaact actggtgggc 3000  
 tagagggtcg cacctggggt atccttttcc accgacgtat ttcctcttaa attcgtcaag 3060  
 gtcaatcttg acttcttctc ctgtcacttc atagccctat tggtcgagat tagtgccctg 3120

cgactggagc caggcagaac gcaataacgt acgcggtctt gcagcatttc gaaaactgtt 3180  
 cgccatgtgc gccagacgcg gatggtctcg cgctcggcgt cgtcggcgga ataattgtat 3240  
 tcgtcatcca tcgcgatgga aagatgagct gagaaaagtt aaataaagga agagggcgag 3300  
 cgcagatagt tctcgtgag aggtagtga gctcggaggg ttgaacgctt tgcgtcgaaa 3360  
 aatcggggcga gcgctaagag cgccaacggt aagcgccgcc aatgagacgc cagaaagccc 3420  
 cagaatccta aaggccagac acatcttcca ccttattctt ttctctcctt cccccatcc 3480  
 tctctttttt cctgtctttt cttattttct cattctctat ttctctcccg gctttgggat 3540  
 tcttcttcgg ggattcaatt tgctttctcc cgggctccaa ttctccctcg agtccgtccc 3600  
 gttcggttgt ttattgcttg tttttcccca cgtaggctcg ttttaattatg gccgctgctg 3660  
 tcaagtccga gggggcttcc gaacccaaag tcaggccgac caagcctgat gaggagacct 3720  
 tcaaggccaa tcttgcccag gctgagaagg agcatgctgc tgttcaggag aaattggtat 3780  
 gcgccctttt gattttatgc tttcgcacag tgtctactga attgtcacgt gggactatgc 3840  
 ttattacgct cgcaattgct atacatatgc tgactgcagg tagaaccaaa tcaaggccaa 3900  
 gattgaagcc gcgaagccaa caaccaggac tcgccggccg caaagagaca gcaggagctt 3960  
 cgcgctgagc tgtcctcgat tcgtcagaag cagcagggat tcaaggcctc aaggaccagc 4020  
 acccaggaga agattaatgc cctcgatgcg acgctcaagg ctgcgattgc cgagcagaac 4080  
 aactcccga cccgcatgtg cttcaagaac gtcgaggagc ttgaccgtga gattgcccgt 4140  
 ctggagaagc 4150

<210> 5041  
 <211> 3828  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5041

ctgtattgtg gtgcaggctg cgactctata tagggctgga atctggggca ggaaagggga 60  
 aaatcagggtg atgacgtcag ggtgaccgca gagctgtcac tacgcaatgc tccaccttaa 120  
 gccattcaa cgtctctgtt tctattaatt gaatgagatt gtgtccaggg acatgacatc 180  
 aaccggtcac acaatgtgag tcattacacg gaccatcgtc atgaatgctc ttttacattg 240  
 aatggtagcc aatgctggac ctcgtcgcag gcagcatcat taaggaatgg tcgacactgt 300

acgacgatcg cgatacgatg aattcattgt cctctaagaa gactattctg tctggcacga 360  
 tccggccact tctaggtctg tcgatctgcg tgattgccgg tcggatctgc ctggtctcag 420  
 tcgcctgaga tgctatagtg acgtgcggtga aaaaaaaag gtaaaaatag aaaaaagaaa 480  
 aaataaaaaga aaagaaaaaa acacaagaag aaaaaaagaa tattactcga gacactcaac 540  
 tatgaacgcg tacgggctgc atctttctgg tggtcattgc taattattct ttgtgacgca 600  
 gtaactcttg ggatgggtatc acgttggatg tcgttgccgt gctgcagttt ccttgagctg 660  
 gaacgtccgt cttcattcct ggggccggat tcaagcggtc cgctggaggc accgacagtg 720  
 tgectggcct gaacggtaaa cacaccgct accgactcca tctcatccgg cggttcagag 780  
 gcgatcatga cgcattgtcc tgattcgatg tgggcgcttt cccaatacga ttgtttattg 840  
 tctgcatcca cagacaggac ctgcgagctg gctgtccctg agactccatt ccattccgcg 900  
 gttcagcgag gactatgacg agggcggatc ctgaagtctg aatgcgattt cccgtctcga 960  
 accttggtaa tgccagaaaa cagaggactt tttgtcagtc tcttgcaaa tcatcagatt 1020  
 gatctgtccg aggtgcgacc atgaatggat tacgagtctg cctttgtcac tagccggcga 1080  
 ttgggcctgc ccttaaaggt aggcattttc gactggcgtc agggacaccc acagaactgt 1140  
 gcctagtatt ctgtactgac agcatttgcg agagaatact aatgatgttt cgccgaagaa 1200  
 aaatatacaa acttggtgat agacactatg gattataagg actctctaac ttgatgtttg 1260  
 cgcttgtcct ccaagaacgg gcgtcgcgcg tgcaccagcg agtattgcaa aatgttgatc 1320  
 tgaccgggtg atctttgatg ggctctcgct gatgtacggt cctggcagga aatctgtgcg 1380  
 caccgtggac agtcattgtt tcttccccca gccagcggtc ccaagttggg tgtacagctt 1440  
 tccttggtac gtctgaaact gcacccatga aaggcgcagg tcgagacctg agctggtacc 1500  
 ggtttttgtt ctgcacccg atcgatcttc cttgtctgct ccacgtttgt ctttgggacc 1560  
 agagtttggc ccgctgcggc tgttacgcca tcttgaagc aaaagaaggc ttctgggcgc 1620  
 tattgtctaa gaactctaga gtctggcaga cagtgagagt atggctcctg gagaagccat 1680  
 ggaagagacc actgcatcag tgacagtctc tgcgcttaac gtctcgatct tcatgagcac 1740  
 atttggtaaa agtcatgtcg agcagttgcc cacagaactc aatagacggc tgccgagctg 1800  
 atcgatgact tttgggtgtc acccttcgga aatccacttc ctggaagtgc tgagccaaac 1860  
 aagtatgagc catgtacgcc gctcccagag gtctactgca tcatttgggt gagaaatcag 1920

agtcgagatt gtttctaaag ttgcaactgcc tgacttcgct cggagtgttt tatgatcaag 1980  
 cagtcatgaa cctgtacatc cggttagtg aagaaatcct cactgtgatt caacactcgg 2040  
 tgggtgctgc cctcgcttaa gattccactt caaatcagac agccagtcaa aatctaagcg 2100  
 gatcgatttc cagtacctat aatcagtgag tggtggcaac aatgaaacta gtttcacgca 2160  
 tacgctcccg atagacagaa acccataag gaacgagcat cgatctagag tctgagaact 2220  
 taagacggat aattctgtcc aagctaaggg aactgtata gcattaacag aatatgccga 2280  
 gtggtgtggg aaaaggacat ctaggggtta ttttgcttca taactcccca actattgaaa 2340  
 tgcttgactt caaagccaat ttgtaaatta tatcattaca gcatattata accataattt 2400  
 ctccagcaag cactcgacct gcctccggcc aaagctgtac ggagtcaga accggaatac 2460  
 gtatgtctaa ccatttcaaa cgccgtttct ccatgacaat gctagtactc ctcttgccgg 2520  
 gcatttttgc accttttcgc tcaaacgcag atctgaagaa tccaacaggg tatcgcatcc 2580  
 aggtttccat agaaggcgcc accggtgatt ctctaggttt gacctcaatc gatgggcgac 2640  
 ggcaagtatt gcaaaatcct acacaactgt ccagagaagg gcaggtcata ttaacattcg 2700  
 gtgccgcccc tagtccttat attottgtta acaatgcact gggagcttag cttgaacggg 2760  
 caacgatgac aatcgccgtc gcagctacat aatgacggat taggtcgaag atctgggttt 2820  
 caacgaagca gcctcaacgg ccttgagcgc tccgtgatat tgcctttgtg ccttacctaa 2880  
 acccttactc catggaccgg cgctttgcat tggtagcag gctagatgca aatcaaaacc 2940  
 tgacgctgat atgtcaccgc caggtacatc ggaagctaca ctgcgaaata gagaacgtgg 3000  
 agctatttcc atctcaatcc ggagatttgg attgccagtt ccaggccctt ttcttggtcg 3060  
 agggagtcga tgcaccagag ttgaaatgta agaagacaga gaatttgaca tttccattt 3120  
 tacattgaat agtcttcgct ttctgcgttg tgcggatgcc ttggtacata ttcaggagat 3180  
 atggacatca agagagtata cggcctgtac cctagaacgg cacaagatc agacctacag 3240  
 acaaccattt aaattgagac gcttgacttt tgcgctgggt cacttatcca cggatcagta 3300  
 attttctaga tatatggctc cctttcccaa aagctctaac caaggttctt gaatctctac 3360  
 ttcaagatga cgtggcgatc tagagctgat gatgctgacc accgacactc gccattgac 3420  
 cttatgttct gtcgctttca tatcttatcg caaggacaaa atccagttac gatactcacc 3480  
 agttcggaat tctaggagtc agacaagata cagacgtagc cgtccgaaga tgacccaac 3540

tccacgaatc agcgaaacaa tcgcacaaga ccacgccgag atcaaagcta tttacgaccg 3600  
 tatcgatatca tcgacctcgc gcgacgagca gatccgctac cagaacctct tcgtctggga 3660  
 actcgcccggt cacgctgtcg gggaagagct ggtcgtatat cccgccttcg agaaacatgt 3720  
 acagttcgtg ggcgctggtc tcgcgtcaaa ggatcgcgag gagcatcaag ccgtaatgga 3780  
 cccctcttcc agatttgcgc atcctcctct cttgatagca gtagatta 3828

<210> 5042  
 <211> 4263  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5042

agggtggaagt attcggagac aggatggcgc ccagagatc tggttcggct ggaggagact 60  
 ggatctgcac cggtctgggag agggcgccgt agtaatgaca ggtgtatgaa cagcactgtc 120  
 tgttgtaact ggtggtcctg ccttcgttgc tgtagtagct gctgtcgtat tcgtcgggtg 180  
 tgttggtgat ggtgctgtct ttggctgctc aacaccaatg acgcgagtgc gtccagtgcg 240  
 cctggaaacc atatactgc aaggcagacc acggcggacg catcgactgc atgtgggctt 300  
 ctcttattg cacttgacct tggatctgga gcacgagatg caactctcgc gcagtttgcg 360  
 tgtcccttgc gttccccccg gggccgtggg tgtggattgc tggctgatcg ctgggggctc 420  
 catgatattt gcatatgata caggcccgca ttgcggattg aaccgcgaga tctggatgat 480  
 atatatcagt gaagagaaga tggggagtaa gctgtactgt gtaagctgta cttgggggtca 540  
 atattcccgc agggattaca gggctcgata tctaccgact gacacaagaa ataacaattc 600  
 aactttactg gctatgggtt tcaagggttg caaacttagc ctggagattc gccatgagga 660  
 gatacgactc cagagagggg atactgcggg ctagaactgg ttgactgcat gagccatacg 720  
 ataaccccat tagcttgatc cattacttat cctaagcgaa ggctgagcac cgcaagctgc 780  
 cctgtcgggg tctaggagtc ggcagccgct gggctatatc aaggcttcga cctagggccc 840  
 gcaagcagtg ggctttccta ttcgagacgc tgctctccct tccccaccgc atatctttgt 900  
 ctttgctgta cagacttttt agtaatggcg actcagccag ctggcttttt gcaacagttc 960  
 gcgcttcagg caagtctttg tgttcccccc ttgggatcgt cctgcttcca gtccccgaag 1020  
 aatgaccggt gctaacaaag taaagacgca actcctggcc aatctacaat ggctatgcga 1080

gtttcaagtg ttggcctgca ttccccctgga cggagaggtg gcttttcgagg aggtcgcgga 1140  
 tatcagcaat gtccctgtgg accagctgca gcgagtcgta cgcctgatgg tgactgcagg 1200  
 attcctcagc gagagaccta gcgggcacgt tgcgcatacc ccactatcag cctcctttgt 1260  
 cacggagcca gagctgctag acgcagcgt tttcctggcc cagggttgagg ttccggcggc 1320  
 actgaagatg ccacgctcaa cgtgccagcc ggacccttat gatcgtggcc tctctccgtc 1380  
 gctgattgct cgatcagaga gtagggcaac gggattggaa gatagacctg atcctgcaca 1440  
 acccaaggtg caacgccagt ttgcagccta tcttgctcga gggattcttg atgagccttt 1500  
 ggccgttgat gaggtgcttc gcttggtaga ctgggggtgcc attgggcccg ccaccatcgt 1560  
 ggatgtcagc ttaccatata gtcgatccag atcatccgc tgacagcatc cagatccatc 1620  
 ccccgccac cagcaccatc ggcatgattg ctgccctggg tctgcccgc cagttagtta 1680  
 tccagacaag ctgcctggt aacggccagt cgggcccgat aacgggctct gagccatcct 1740  
 gggtgacata ccagctgcca cgtccatca gtaatcgtgt ctcggtgcat tcgcgggggg 1800  
 ccggcgcccc ccagacggtc ttaggtccag cggctcatc cgtccgcac ccgtccccct 1860  
 caccatgct accttgagc aaattgcgga gccaaactgt gatggagctg caggcccatc 1920  
 tccaggttct ccgcactcag cccacttccc gcctgatgat agcggcctta gtcctgccgt 1980  
 cgctggaac agtcaatcag gagacggaat ccatggtgag actgcgcgac atgtcgctcc 2040  
 tgcagttgtc taatgagcgg cagcctacca agacagagat cgtcgagatt gttaccggca 2100  
 tcagggactc agggggctgt ttagtggtga cagcgcagat acacacaaca gccagtgtgt 2160  
 caattgggct agaggtgcga tacgaaccgt ctgctagaaa gcactaagga atgccacgtc 2220  
 ggaggggtac cgcacatgg actacgcttt gacgccaac attatagcat gactgcagct 2280  
 gataaaaagc taaacggcag caagtgattg gtggacactg gattagcttt agtgtgcatt 2340  
 ttctgtctt ggctgccgag aagccctact gcaagtccac gacgctgtaa aaggtttgtc 2400  
 attgtgaggg tgtgcaccag gattttttgc cgcgctagta atatttgatg ccatatcata 2460  
 tgatataatt accggctatt agacaactag gttattgggt gagattgatc ttccagagca 2520  
 aacattaaca tagccatttt ctatttttaa agcttccaga ctgctactaa cagatcaaac 2580  
 tagtttaaag agggctgaaa agtacatttc cgcaaatatg cctgctttta atttgcttc 2640  
 gaactgtatg cggcccttcg tgcgtgcagt ccttgaatgc caatgcctta tctaaacgat 2700

ttcaagtata tatcctttct tattgggccc agattaaagc agctaataata cccgatattc 2760  
 ttagatcaga catttatata acgcagaaca tagccagaag gtacacacca tgcccataat 2820  
 catgctctgt acttgaaagc taaacttgac taattgaaag atggcgaata atccagttat 2880  
 caaaggatat ttctaagctg taattactta aggcagatac agtgggttac caacatatta 2940  
 gagccattaa gcatagaagg gctgtaagaa ttataattct tatagctgga atggcagtag 3000  
 ggcagacaga tcagggccag ctttccgcat gtgaaggcct aactctaggg tctggaagaa 3060  
 cctctagctt tatttgtgct agtttatctt attatgatct tctttcttac gtgaataata 3120  
 ctaccacagt cttttgccgg gcattactac tttaatttct tagtaaagca ataagctgta 3180  
 cagtggcagt actagcatcc atactagcgc tgcaaagact ttggtgccta cgtacttctg 3240  
 ttcttcaaca caaccacag cggtttcttg tcccacagga tccagatccc ctgcaccgcc 3300  
 atccagtcca tattttccat gcgccgccgg tccagttcta catcaaagtg ccataagagg 3360  
 tggaccagga acagccgcat ctcggaaga gccaaactggc gtccgatgca attgcggtga 3420  
 ccaatgctaa atgggtgcga ggctcccgc cgatcattga tgaactcacc ttccttttcc 3480  
 caccgttcgg gaataaactc gtctggacgg tgaaagtgg tgggggagcg acaggcagca 3540  
 aactgtcggc cggcgaccga ggtctgtaat caatcggta gcgagaggcc catcggtga 3600  
 aagagaaaag aaggaaaagg gcaggatgag tggctgcaga cttaccctc ccggaacca 3660  
 gctgcctgca agacgggccc cgggtggtgg aacaatacgg ttgctttgca taggcaactgc 3720  
 aggatatagg cgtagcgact cgtcaaggac cgctggagc ccctggatct tgcgtaccgt 3780  
 ttgtgcataa atgactgcgg ccgtgctgaa ccgagcgagg atacgctcag tgagctgctg 3840  
 cagatactca gggttcgtga gaagcagcca aagacaccg ttcctagtgg ttgtcgacgt 3900  
 tttgttcccc gaagaacgaa ggctcttgca ttgttgacca tcttgagcg cgaaatttga 3960  
 tgctcaccat ttgaggtct gccagcaccg aatcccacag ttctcgcgcg tgcgttgca 4020  
 gctcagtcgg catccacctt ttttgtgaaa ctggtcatac ccgttaatat cagtacctgt 4080  
 gggcgccaga ctaatggtcc tttcagacgt cctctaaact gtagttcgga tggtttctt 4140  
 tctctaattg cgatctagtt actcattctt tgcagccacg tttcatgcat tctttcttta 4200  
 gttccatacc tatttgcctt cctctatctt gctattttct agctattccg gttttcttaa 4260  
 gat 4263

<210> 5043  
 <211> 7174  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 5043

```

tgttcgggct gttcgggctg ttcattgctgt tcaagcagtt caggcagttc aggcagttca 60
tgttgttcag gcagttcagg cagttcaggc agttcaggca gttcaggcag ttcagttggc 120
agaggcagtg gcagaggcag tggcagtgac agcccaggaa attacctggc aatgtctcct 180
gcggtatatg caacgcctca actaccggag ccatgcatga tcatccccgt ttcgttcagc 240
gtcctcttaa aaggccagaa atgagcgcca gatttagtaa gagcactgta gctatgctcc 300
gtatcggaat gataaccttc ctgtcgagtc cctagtctcg tccagcgtg ctaccactat 360
ccactttttt tctgtgctct ttgatgtcat ttcacagcct tatttctgcc atttgtgcca 420
tttatgccat tattataatt attattatcc tggatttttt ttttatttta tttggtcatt 480
tccggccaag gtgtatcgtc ctgatcccac caaccagcct aaacccccct tccccacgca 540
gttcctcaca gaaccgccag acgcaacaga acccaatctt aatcgtctta atcttaaata 600
tatagagaga ttggtctggc agacggactg agaaaagact cccgcgacat tgccttccc 660
tcatctctcc tcttctgttt cgcttccctg cccattcctt ccttccctca ctttatagac 720
ctaatttata tggattttcc cgggtggattg ctgtgcttg tttcattttt cattttttat 780
tccctgggtc tgattcccaa gactccaata ctttctaata actccttact acatattcta 840
tctatcctaa ttaatcctcg ccaacacttt cgagtgaatt tctccgctgg acgtccgata 900
gtggaatcgg ccacgacgac acgagaccac tgcaaccaac caacaacgac tggaatcggc 960
aaacaatata gactgcagtc ctgatcccta gtgccggggtc tcgacttaat tcggttgaaa 1020
cacctgcgct gcccctcgat ttgagagtca gtccatacag tcgacgctct tactgcatcg 1080
gaaggggtgga gtaccgctgc tgaaacgagt gccaacgatc ctacgcccga cgccgacgcc 1140
cactcccacc tctccagcca tcgcgcactc gtcttgatcg atgcgcgact ttctgtagtc 1200
gaatcgacac cgattactac cctcgtccg tcatttcctt gaatggcggc ttcgctcgcc 1260
cgctctatcc tccagctcag ctcccgtcc cacatcttcc cgatccccgg ccttttgatg 1320
cgctgctct agggctggtc gacttcccca gaagcatgac tacggctgtt gagtgcata 1380

```

catcgatcac cgtctctcag accgccgtca tggatccctc cgccgacaag aagcgcaaca 1440  
agctgggata ccatcgacac tctgtcgcat gcggtcagtg gccctccctc ccccatcggt 1500  
ccccctccat tgctgtttgc ttatcctgct ccagtcact gtcgacggcg caagatccgg 1560  
tgtcttgttg ccgcagacga cgcccagggc cgatgcgaaa actgcatccg tctgcgcaaa 1620  
gagtgccagt tcttcccggg ggaccaaaaa ccgccgatcg agaagaaatc ccgtcccaat 1680  
tcccgcacg aaacgatctc gaatgatccg tcgacggctt cgtcgtcgcc tccgactgtc 1740  
tcgggagacc agacagacgc ttactaccac taccagcata tgcccttgag cgccggccaa 1800  
gacgtcgcgg cggtcaacgc cgcgccgtat gcgaatcaa tggctcaatt cgcgccaggt 1860  
gggtatcatc agatggaatc agggtaagt gtctcgccac tgacgaggtc cggcacaggt 1920  
gtagatgcga catcgacccc caatccgatg gacccatccg tcccctggga cgagttcact 1980  
acgttgccct cagacccgca gctgctggcg acgatgtctg ccgcggggaa gcccatgggtc 2040  
agcgtcaaca tgctcacca agtcatgtc tggagccagc ctgcgacccc gatcgccgca 2100  
atgccaccta atacacagct cccagggcg cccaccgtgc cctcacaacc acagcctttg 2160  
agcccgatc cgccctacac agtgcagccc gacggctccg tctcgggtctg gcaaatggcg 2220  
cagactccca ctcgatcgat gacgttcctt gccagccga acatgccgc gcagtatccc 2280  
agtcccggcg gcttcgcaca acccatgccg gccgacctca agcggcgagt gaccagtccc 2340  
ggtcaagggt accctatgca cccgcagagc ccgccggccg acctccaggg cacatcggtt 2400  
ccggttacat atgccgcgca gccgacaggt ataggatacc ccgggtggca ggatatgagt 2460  
ggcgtaacac cgggtgaatat ggtcccatac ccggtataca cagacgcaca gcaagcacag 2520  
gccgtgtacg gcagccctct gatggggcct ggcgctggac atggacaccc ggggcaacat 2580  
caataacatc cgtgggacga acaacatcca aaaatcgtac ttagccgaag gaaggggacg 2640  
attcagcgag gagcgacggt ttcaattcgg ttctgtttgg ttccattata cactatcacc 2700  
atctataccc gttggatata ttgcattatg catttctttg ggtttcatac acttcgtctg 2760  
gtgggttcat ctatacactg gctgggggtt ctaccagcta agcattagcg ggcgcaatgg 2820  
ggttggttca gtttgggtgg cttttttcca tatccatttc cattttctgt tcatatcatt 2880  
catgttctga tttcatctg ccttgctcga ttagagttgc attatgttta gatctccctg 2940  
tattggatcc atgctatgcc ggtctctctt tccttgcggg tttccccgtt tgatggcggt 3000

cttatgagct agagtggaaat ttcctttgtc agcaaggcaa gatgagtcgt tagatgtatg 3060  
 ctactgctcc tgtaccttca aaccctatct acaccatgca aagaaaccta tctattctgt 3120  
 acgaatagca ccagatagcg agtatctact catccgagca ggtattgagt tcccctagca 3180  
 cgaacatgca atgtggcagg actatctggt ccctatatat gtaaaggacg tacctgacat 3240  
 agtcaagtca tgaaagacgt tcgtcatcca ctcatgctaa tcctatctgc ttctcatcta 3300  
 gatctaacct caaggcccggt aaaaaattgt gtcgtccgcg catgcttgag tcgtccgctg 3360  
 catgcgcaat tgaaggcgat acagctgaag agtctctagt cccagaacat ctacgtcgat 3420  
 tctagttagg gtccagtcgc gcctagagta ggacttagga caaaaaggta ggaacgtacg 3480  
 tgcgaagaag gcatccaagt gtactgacta tacgaggggtg ccactgtcgg tacttccggc 3540  
 atactgtgag tgccctcaag gtcattggatg ctacctgctt gactgcctaa gctctcgtgg 3600  
 tacgccggtg gataccatgt aagtaatgga ggtactggct taaccaagct aaaatctcaa 3660  
 cccagttcag ctatcccagc tcaatgaatg tctgggctcc tgatgtcgta caggacacta 3720  
 ggtattgagc actgaagccg cagctgggag tcttgatagc tagttagaga agatcagtta 3780  
 accgcctacg gtaagtacca gtagtagtat cattcacagt tcagattgga gcagttattc 3840  
 tgttttattc ttgatctcga caaggtagc acgagagggc cgcgaaaccg gacaggggtg 3900  
 aataaaggat agtgcagata agtagctctg gacgtacgta catgtcatct tcaaagtcag 3960  
 aaatagtctc gatagtcgtc ctctccgtcc ccgggcatca tgcttctgat ctgtatcgat 4020  
 tcagcttaga ttctacacca gtcgggaaaa ttagggccac ggtgaatcgg cataaggcgt 4080  
 cttgagcacc gtcgaaagaa accggcacta ttgaacggaa tctaacttag ctctttggaa 4140  
 agctttgcgg tgggagttgt aggtaaatac tatgctctat cttcaacata tgttattcta 4200  
 cagggcacta cactctcaat tgttattgag acgtatgggc gatggccagg acgggataac 4260  
 ctgattacta cggtgaaatt tttactgct ctaatatcca cgggctctct atcttaaata 4320  
 tgctgatata tggcggagtg aaccggcagc catcttccaa tcaaactccg tagacttaaa 4380  
 tcagacaaaa ggcattggtca tgtccgaaat aagaagcgca tctggcacct gcaatttatc 4440  
 ccggctacag tgctcgccat ctagctctca ggagattgga ccgggaatta gttagtccaa 4500  
 gccatatagg agggcgcatg atgttgctc agctttatgg acctttactc ttgaacagat 4560  
 cttccttgct tgatctacaa taatggtagt tgcagggtcc aagcttcag agcacctgta 4620

tctcatggat cttgtaccgt tcataaacag caatattgag cagcagatgg gtgatgacag 4680  
tgtattggca gacaaagctg ggcaggcatt ctggatgggt gtataatcat ttacatagat 4740  
cacctacttg ataagtgatg aatcgcgtat ccattcatga attcaggaac aggaacatat 4800  
atatacctag ttcgtttggc tcggcctggg tacatcatac tctcttgctc acaggtgctc 4860  
tcgggtcccag ttccttacct atcttgagac aaagaaaagc aagagcatat ctacaatacg 4920  
attgttgggc agaacctcct tgtcacctca tgatgggtcc ccgctgaatc cgtcgagaga 4980  
ttaccgcgtc gctatgaagt cctccagtgt tcttaagacg aagctgaatc gtatgagtat 5040  
cggtagagca tgggtggacct ggctacaacc acgaacgcag tgcattgtga acatagccta 5100  
gtcaaagcc aggaatcaat tcttccgacg cgttaggctg agggaatgga tagataacca 5160  
aaaatggtag aagacattta gaggtataaa tcttttagt gcccaaagggt ggccgcgtca 5220  
ttatgcttag tgcgccgaat cagtgattgt agagccatgc agttcgaagt cggactcccg 5280  
tctgaagtcc agatcgacgc atatggtgat tgagatttgt cgagtgaaca aaaggttaat 5340  
gaccgaagaa gctcttctga ttaaccggct aggctgctgc tgattctcaa cgtcttctg 5400  
ctatcgcgct cgtcaatata ttaaattctg agcaccgagt aggcaactca ataatagcgc 5460  
aattgaagga gggctaata ggaacaaaca gaaaaagaac ctaaaccgca tagaacctct 5520  
aacgtttgct ctaccaattg gagagggcag gttcagatct gttgatcgct gcgtcggatc 5580  
cgaccctgc ttatcttata ataagcaggg atgctatgcc ggggtggaaga cggaatgacc 5640  
acgtttctcc gcggtgaaag gccgcgataa ggaaccgaca gaggcagggtg aaaagcctta 5700  
agagaaggag ctctcaatgc agcgattccc aacgaagaaa cgaggtgggt ttgcagtatt 5760  
gaacaaagtc actgagctcg ggacgtctgg ggtacgattg cggagagatc aacccaaccg 5820  
cccctacgca gtctgattga aatccatctc ggcaccattg gtagcaattc gttaggccaa 5880  
gattgaaatt gagcatagat aaacatgcaa agcatatcat gcacgtaatc ggccctgacg 5940  
gttgctcca ggtcctagca agggtaaag ggactaatct gacgtggatt tgctgaggct 6000  
tatcttgacg ccgccgttag caaatgaagg tggtgtgtg aaccggttat ctcgataatc 6060  
acgtcttcaa gacgaggggc cgatacgcg ctagatagat acgtccatcg ctcgcagggt 6120  
ttgatagtga ttacgtgtg tcattctctt tctctgggac tgcggttggt tagcgttgct 6180  
tctctgacag ctcggcagca gtacaaaacc agggacaccc cccttggatt ggcgagcggt 6240

ggtgtgagat accaggaggg gatctcttcg tctcttggc agatccctgc gggacgtaaa 6300  
 gggtagccg tacatataag gtcgcttgat ggcagagaga cacgagcgac caccgtccta 6360  
 actcagattg acgcccctca gcaatctgct ttctcgaccg tctccacgga tgatccgcca 6420  
 aaaggacagt ccgctgtctt tatactagge aagtgttcac acatacgcta ctatctccac 6480  
 ggccttcggc actccaagct cccacggcag ctggtcagca tcttggactc atcaacggcg 6540  
 ccgacggcat cgtaagacga tctcggcttc cggctaccgt tacgagagcg cttccaaagg 6600  
 cgctgagggc tatggctcac caccgcagcg ccgtccgtcc agcgccatcc gtccagagcc 6660  
 cagctcagag ctacaccccg gtctcgtagg gtgcgcctgc ccatgcttat tactatattg 6720  
 ctgtcgtctg cagcgttctg cggcctactc cgagatccgg ggcagggatg tgccgtatct 6780  
 cgtttagtag cgggtaccg agctttttcc ccataccgc cgacgcccgc agaaaacatc 6840  
 cctgtactcg atttcgaaaa cgctcctggg cgcgtcatcg aatctgcagg gtgctcaggt 6900  
 caggcaaata atgtgggagt atcttccgct gagtgatcat gaaagagaaa tacgctgttg 6960  
 gcgagatgca tttgatcttg gaatgaagat aatgtttgtg atgacgatac tcggtagttt 7020  
 actggaatga ttcttcccca tggacagcag atgggtccaag tgacggcccc cgtcagatcc 7080  
 actccatccg catacgggga atacggttca agctgagcca acccatcatg acgaaggatt 7140  
 aatcatcctg ctctgtttgg tggacgttga atct 7174

<210> 5044  
 <211> 4317  
 <212> DNA  
 <213> *Aspergillus nidulans*

<223> unsure at all n locations  
 <400> 5044

gacatggctg tgtgtggccc cttgggaatt ccggccaaaa aaaaagagca gtgaccacgt 60  
 ggagactggc aagcaccggt taaactggac cacgaatgcc tccaatcgcg attgcagaca 120  
 cgaccagata gttgtttgta atatattcct tctagataac ttccagcacc ggagaaatca 180  
 tcggagattg cgctctgaag actcgaatcg atcctgcgcg acaccttaat gttcgcctag 240  
 acctctatgc atatgaaaca cactcgcccc atttggtctt tgccgagtct tcagagccct 300  
 tgtagtggct gtaagtgggc gactccaggg ccggggccct gggacttatg caatagcttg 360  
 gatgaattgt tgtccacgtt atgacgaaca ttgtaaccct gatccagaga attcatttct 420

tttaatctct ttcttcgttc tcgaatcacc ggtggcgat tgttttgtca ctaagacagt 480  
 gtcagagact tgatgctcat ttgccttatt agcccagcca gaccctaaaa gaccttcgag 540  
 aagggagaca attgtaagga ttgtcgccct cttcctgtga acagagcata tgcagtctgt 600  
 tcaaaatctt gtcctgtca gatcatggca tacatatcgg ccagccatgg ctcggttcgag 660  
 ccggtgttcc tcattgttat gagcattctg ctgttctctt cggtcgtcac cgtctcattg 720  
 cggctgtttt gtcgggtttt ccggtccac aaaacaggca ttgatgacta cctcatcgtg 780  
 gcagcaacgg ccgtgaccat cgggatggga atcatgaatg gattccatgt cgcggtagga 840  
 acagggtagc ttgcgtttcc tcaactgctgt ctagttcctg gttgacgct accagccagc 900  
 acctgaaata cttggacctg tcgggtggcc ttgtaccac gctcaaact tggtatgcat 960  
 atcaaattgt ctatccgatc accgttgggc tcgtcaagtt tagcatcttg acacagtatt 1020  
 accgatatt tgaaattaga aaattcagaa ttcaggttat tgtggtcggg gtatttgttc 1080  
 tggctctatac cattgtttgc atctttgtga atgtgtgata tttgtcctgc cctgtgtatc 1140  
 cattagagat tgctgacaag ccgtccaggc ctttgaatgt cacagcaagc cttggcgggc 1200  
 atgggatccc tcatttcccg agggctgcaa caatcttcca gcgacatatt tttcgaccgc 1260  
 ggctataact attttcacag atctggtgat tctcatcatg ccaataccgc agctgatgaa 1320  
 gcttaacatc caccacagaa gaaaatgtat gtttagccca agggagcaac tgagagtaca 1380  
 tctgacaatg gcccagacg ccttggttagc catctttttg acagggacat ttgcgtccgc 1440  
 tgcacgatc gccgctctga acgctttgta caagtataca gtcacggaag atgtttcgta 1500  
 cgatgccatt ctgattcttc tctggacgca aatcgaggtg aacgtcgcca tcatatccgc 1560  
 atccgcgccc tcgcttcggc cgctattcaa ccgtatcttc aagggttcct cgtacgaccg 1620  
 gccacgaccg tcaaactccc cgtatccggg atacggcacg tacggacatg gcgaatcaca 1680  
 ttatcgacgg acaatcacgc acggtaacac ccacggagcg atcgaactca cttcccgcga 1740  
 tgacgacgag agtcttgccg ccggtgtaca tggggtgatc cgatctagct cgcgagctcg 1800  
 agcgttggtt aacgacgaga ccagtagcca ggagcatatc cttgaccaga acacaaacat 1860  
 tgtgaagacg gtggtgattg agatgaagag cgagggtagg agataatctg tgcgaaagct 1920  
 cgggtttaca taagggaaga aatgggtgag tgtccatcta agtggctggg gtttgggtta 1980  
 ggaaaaggcg ttgaggttcc tgcgtaggga ccagggtatg attgacgatc tagaatatac 2040

ttgtaattag tccaggaaca tatatcctct tgaaatattc gcttaccttt ctatttttcc 2100  
 catccagacc aggagaaccc tgttttgatg acgggtgatt cgcgctcaat cgctatccta 2160  
 aaaggaaata gcaagctggt gagcctgagg attctgagaa ttgaagtcac ccgtacgata 2220  
 taatgatccg ccgggagcat ccacagatcg accatcaata ttttcgttct ggtcttgggc 2280  
 gatcgatcgg atcttgccgg gaccgtgggc tgcggagggg gtgtgggtggg taaagtgcgg 2340  
 gtcggctcgg aaccgaagct ggtggccaga gtttatgcgg gactgtgtac tgagcagggg 2400  
 cctggctttc agctcgatat gcagaaaata ttattatatt attaggagag attacggggc 2460  
 aattagagcc aatgctagat ttctgaacta gagtataaga gtaatgtaga tccgcaaagc 2520  
 ccataacttt tcccggggta tcatatccag atgtcattaa acaaggcaaa gtctgtcgca 2580  
 tactatcacc gccatgaaga aaaccatctt gaatgccgtg gtattgggtg gagaggctca 2640  
 gtgcgcgtat tgatattccg atacctagcg ggcgtagagg aaggactgaa cgtcgaaaag 2700  
 gattccatat ggttatcctg gttcagcttt ctggaagaca tgggtgctgat cctgaaaaga 2760  
 tttgtgtaac cagatatacc ttttccacct ctcgttgggc acgtccagca ttactaacgg 2820  
 gagcaaacac tccatagtat atgcgaatcg gtcgatttgc ccagcaactg tagtcgcgga 2880  
 ctgcgaggtg acttgcgacg agtaagtcac ggcgcgcgtg attccgataa agcagagact 2940  
 cgcgacgcga atctcggttg tacggagaag ataccgaaa atgagtctgg tagaggagat 3000  
 tttcggggag actcgatagg cattatggag cagacgaatg agaaaaaagg agtccaagt 3060  
 ttcaacgagg gcgatcgatg tgaaatatcc gacatgaagg tagccgatct ggtgctggta 3120  
 cgccccgccg gaatggacgg tatcgacacc gctgacgata ttoaatatcc gatagaccag 3180  
 gatggtcata cgaagcgatg tgatagccac caggaggaac cagaacatgc agagaaagat 3240  
 agtgcgcgcg gttccgcgaa gggatatggac caggatctgg taactgtaaa aggagaggcc 3300  
 tgcctcttgg atctagaaga gaggactaat gagtgcgagag cagagggctc gaaaaagcac 3360  
 tgcgcttacc agccagaaga agtcggcaaa gccacttgct acggctctgt tggggatcgg 3420  
 ataatgggtg gcatagaatg cgtagtaaca ggccccgttc gctattgcac acgaaatgga 3480  
 caccacgatt ggaatatagg tcaatgggct ggggcgactg atgaagagag ccagacgcc 3540  
 gacaagagtg gcaaagagcc caatgctgct caagatggac cagctcaatt cgaagtatgt 3600  
 ggccatggtg agatgaggat taggctgggg gtacttggga tccatctcga ctggccaacc 3660

cccagcgga gcatctgctg cttgggggtg atgatgggag tcttcatgcg ttgtcgagaa 3720  
 taaaaaggat ctcgggagaa aacagaacga tgaccatcaa cgaaaacgat gactgatata 3780  
 cgaagattga actcctgggg aaagcgtctg cccctgctg aggtgaaaca ctggtcgcgt 3840  
 gttgatcaca cccccacaa atctcattga cggactaatt ccagatcgag gtcgtcccgt 3900  
 tgaatcagac actacgaaaa actgaatcgc agaaaccttc ttctccgaat ggaaatggtc 3960  
 tccggcagac cttagctgcc cgtactctc gaccgagttc atgtggagga gggggagacg 4020  
 aggatttgat cttcttttta ggtnacccat ttcaatcgac tctgtaacac tggccctgaa 4080  
 agtttttctt accacgtga ttggcgcccc tcaattcatc cctactctct ggacgggcta 4140  
 tttcacgnc atcctcttcg tcttcttcg cccgctgtac tactccgcca tgtcgtaagt 4200  
 tctcctaagc tttttatgac atccataaaa atctctacat tttccctta ccaggatcat 4260  
 cccccctagg tctttggttt acaaattttt gccactctaa tggtaatat cattccc 4317

<210> 5045  
 <211> 11734  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5045

aaggggaggc ctcataatgc ctcaggcaga agcttacagc atgtggtcag gatattttca 60  
 ttggctaata ctatcatcca gggccataca cactatgatt gtcgtgatat gtgcagcctc 120  
 tcttaggcac gcgcggacag cgaccatata agatgaaata cggatctttg ctggacacac 180  
 gattatatag ccataaaatc agcaaggaaa cttctcacca atcatcgttt agccgatctc 240  
 gtgggccata ttgcagatga atccttttgc agatttggtg gaggggaaac ctctcgtagc 300  
 gttgactgag atgacgaacc cttgggtttct tgatcttcat ctgtcatagc aggatcgagc 360  
 gagccaagaa taaagcagct tttaaacact tgggcaaagc cgcgaccgct agagctagta 420  
 aacgaggtgc ttggtcttga aaataataac atatagagcc gtctgccatg gcaaactgat 480  
 catgtaacga ccatgaacat actcttacat attcaggacc acgcactccg tcagagttat 540  
 aagtccgcta tcaggcagcc cacagcctcg ggcctatgt cccgcctgat gccagccgag 600  
 agacctgtgc tggaggacga accgccagag ccaaataat acagaacctt gtggctccat 660  
 gagactcaag ggggaagagt ctgtgctcag aattatgcac tgtcactcgt tagggctgat 720

aacactggag gagacattga agcaagactc acaagattct cactgtgaag tctcccttga 780  
 ttttggctcg gacttcaact tcccaggcca tgatgatagt aagtatagtt ttaagtagct 840  
 cttcaggctc gatatacgta tccctcttcac cctgctcgtc tgactcaggc ttgtccgagt 900  
 ccgccctgcg agagctaata ctatgggcta ctggactccc tcccttgcta gtgctggcgt 960  
 cttcctgtgc ttgtccttct gattgaggtt gatctggctg cttcgactga tctggaccag 1020  
 agctctcgat atatgggttt gagagtgaga gctgtgctat gcggtgctgg agagcgtcac 1080  
 tggctctctgg ggtagagtca tcccttattat cgtgcttgga atggcctttc agattgttgg 1140  
 actccattat tcccttagag gaggtgctgg aggcttgcta tgcgttctgg atctgcgatg 1200  
 tccagtcccg gattcatcgt gtctgaaatc cgaaatgatt atgaagtcgc ggctggcctt 1260  
 aggtcgaaaag agggatgaca tgacgtcacc tcaacagtag ctcggtctat tactgtacca 1320  
 ggtttatttg taaatatagc aggaatatta atattaacgt gtattgaccc tcgaaataca 1380  
 atgtacatct aagcgtcgtt aaccctgcat agcacttgcc agaaaagtgg acttaagtac 1440  
 cgtccaagga gctatgatta tcgaagccta tcttccttaa caaacagct gatggaacac 1500  
 cagaaccact catcctcttc gtcacaaaag tcaaggtggc tttgactggc cttgagtatg 1560  
 caatacctgg ccatgactaa ctgtaacgca acgcaaacgc agaagtacaa cgctcaaacg 1620  
 ctcaatttga tgctcagtta ggccaagcat caggggttca tcaggaaata aaacttttaa 1680  
 ctttgacaga cacttaccta cggaaagcct tgatccaaga aagtcagcgt tcagccctta 1740  
 atatgacgct gaagtgtacg tacaaggtct gccagagctc gatatccgag catcaaccat 1800  
 gagccgttac ttcgagatca aaagaccgt cagcatcaag gaatcacctg cagctaggct 1860  
 caatcgtaac aaaggcaatc gactggcaac gagcaaggga cgggggtctt gaatattcat 1920  
 tcattgatag cggccatcgg ctagtcatgc ttactaacia ttgagagtag tggacttccc 1980  
 attatccatg ataccgctg cagcgagagc cagagtatta ctaccataca gctagggcta 2040  
 gccgcctgga ttgccctagc cctaggtcat actttgctcc attccattct gttcctagaa 2100  
 cactccaacg ttgccagaat ggctcttggt ctgatctgaa aacatgggga atgttactat 2160  
 ggacggaaat aagccaatac atgcaaaaat gcagtcacgg gtattgagac agatatggag 2220  
 cctcacgact gtttcagctg agtttcgttc tatctcaagt aggttaagaat tggttcaaaa 2280  
 agccaaaggg agtaaagcgt tggcttgcca ccaatgtaca gacaactgtc aagaacattc 2340

acaaaccata tacaagatat gattatgttt gatggctacc caagtgaatt aatacttcat 2400  
 tcgttttcgtt attcaaccag tcgattaagt aatagctccc ctaccagagg taaccacatc 2460  
 caaattcaga tttatccaag aattcaagct tcaaattctca aaatctccaa ggagtaaaca 2520  
 tatcagttgc gacctttctc catgtcatcg atgacacccc tctcagccct aacctcccca 2580  
 acatectcat cgttctcgac atcaaaatca cgtcccagcc gctcaggccc gaaaaacgta 2640  
 acaataatca catacgcata gacacagccc atgaatatac aaatcacctt gccatagtca 2700  
 tacctttctt cgccctctc cgtcggcggt agcgggaacc tctccccgat agtcgattcg 2760  
 atagtcgagc tcgcggaaga caccagatta cctaactgat atgccgtgcc gacagtaaata 2820  
 gtccggatag aacctggcga gagttccatc aggtggatgg ggatcacgcc ccacgcgcct 2880  
 tggacgcaga actggtcgaa gaaggcagga gccatgatct tatggctcga aataaagggtg 2940  
 tatgggtata ggagggcgcc gccgacaatg ctgattacaa taatactgaa tcgacgaccg 3000  
 aaaatttggg agccccagcc gcagagcgtg ccgccggtta gggcgcccag gttggccacg 3060  
 acctgggtca ctgttacggc gtcgcgagag aagccgtact ggcgctggac tagcgtcggg 3120  
 tagaggctctt gggagccgtg ggactttttc atttgttagc gtggtcctga ataaacgtga 3180  
 ggtgtgggca agaaagtacc atgaagttga aaccagccat gagtagacca aggtagataa 3240  
 gaagcaacca atgcctcttg agcgcgacct tgccctcaga tataaaagca gaggtgacgt 3300  
 tgcccggcat ctcagccctg agctcctggc gctgccgata agcattcgtc tcgggcaaga 3360  
 agagccggaa aacgatcgcc agaacaggaa gacaccctgc aaaccaatag aacggtctcc 3420  
 agccgtggga ggttgttccc acaagtgcac gcgcaaaggc agcggctaaa agatatccga 3480  
 atgcatagcc ctgctgcagc agaccagaga caatcccacg cgcttccttg ggacaatcct 3540  
 ctagcgccgt cgccgcaaca ttcccatata atccgcccac ggcgatgccg aagagggcac 3600  
 gaacagcgag aaactgctgg taagtctgag tgaaaccagt gccgatttcc aatgcgataa 3660  
 aaaggagggtt gttgatgatg aaaggccact tgcggcccca tcgatccgag gcaataccaa 3720  
 aggtgatcgc accgacgctg cggagcatga gaacgagagt aattccccag gaaatatcgc 3780  
 taatttcctt gccgaattcc tcggcgagtt cagaggtagt cagggagaca gtgaagaaat 3840  
 cgagggcgtc aagcgtccaa cctaggaaaag ccaccttttt aagttagaag acggaaatga 3900  
 ctctattcag tagacagaat aagacaaacc gcaaagaaca gccactgctg tctattcagc 3960

aacgtcaaag ctttgaatgg gtttggggct ttgcgcatag gaggccttag tgttggaaacg 4020  
 cggctctttca agtactggaa gcaagctttg aaagtgagag gtctgtgctc ctcgggggct 4080  
 tcaatatggc ccgcctgggc cttaacctgg tcatcagcca tgggtgggaga aacttgctgg 4140  
 gctgcaggag gataggagcg gggaaagtgt gctagcgact ggaggaggag gggagacgaa 4200  
 gcagagattt ataagcgtgg aagataagca accccgcaga ggttggtaga ccaggtcagg 4260  
 tcaactggtt ctacagtcca acagcccgag tactacctag gtgccacgag gcgccgatca 4320  
 gtccctgggg cgccggttca ttctgcaaaa agcgagggtt gaggcagcga ctagaccgtc 4380  
 gcaacagttg cgtctcggga ttcactgtct tggaccctg tccgggctgt ctgcagctga 4440  
 gctgtccgat ttatctctga gtttgcgtgt aagaccaaca atatggacac tggcagttct 4500  
 gctggcagtt ctttgtgtct tctccagact ccgcatcccc acgaagagcc gtcacgggg 4560  
 gtggggacag ctgtccagtc cacacccac agaagggact tctcgcttga ttccaattca 4620  
 atgaataaaa atacctggaa tactgatatc tcatcgtcga aataaactg tatcatctta 4680  
 tttgaaattg actcaaaatc ttgtaccctc gtataacgcc ccgctagtgc cttggataca 4740  
 ctggatacta ctatgccgag ccgccttgac acatcttggc ttcccagcca agatcaaccc 4800  
 aaagcttcgc ctgacactgg acaacgcagc ctcaggacct tctatacatc gaatttcag 4860  
 gtggcatggg aatacagtga atttacgcat atatctttgt tataggcca accttgaact 4920  
 tgtcgcgcaa cctccctcca acttcgaagt ctttctcgg ccgccatcga cgttcaatcg 4980  
 aattccgaca tcggtgggac ctggataagc tcggacctgc ctcacccggc ctagcccat 5040  
 tcgggggttac atcgcccttat cttcagactc tatgtagact ccaagtgggtg gaagaagtga 5100  
 aagtaattat gtatttatgc acgctctagc atcggtagag ccatctatat ccagatccaa 5160  
 caatatatac agacaaccct aaccgattaa ccaactgttca gacaagtcta tgtaccgcgg 5220  
 ttgcagcaag acggaaatga gctatacggc agtgcagcaa agaaaacatt attagtaaga 5280  
 acgctcccca tgaactccat atagaagctg atagtgtgt tagaagagat gcaaggcgtc 5340  
 atggcatgg ctttttcttc atatggcttc ctgattcagg cgtgctgggc gtctcatccc 5400  
 cttcaactat cttccaaaac cgggtggagg agaaccgct gcggaagaaa taaatgctga 5460  
 cgagccagcc agcaaggatg ttgacgaggt gatgtgagat gtaggcatag gatactccgt 5520  
 ataccgctga gtagaccgca atacagaata gaaggacgga ggtgacgtgt ttgaatctgc 5580

atgggtcagc agatgtattg accagacatt gaaaagagac ataccgtgtg gtgaccctgg 5640  
 gaatcataga gccggtgggc atggtttcca ccaaatgat aaatggcatg atggacagca 5700  
 cgttgtgatg cgacgaaaat ggcataaacc agtgcacaac aaggttatgt gccagacca 5760  
 ggagaacgag tatattaatc gggaggaccc agagcattaa aataaatacc gagtatgcat 5820  
 agtttgcaaa attatagtgg gcagtcgacc tctgctgctg tcagtacaat ccatcgggga 5880  
 ggctcgacta cgtacagtct ctttggcatg cactgtgcc cgcacacaag tcgccagttg 5940  
 cacgatgcac gctactaagt acgcgaactg gtagggaatt gcggttgata caaggaccaa 6000  
 gagaacaccc atcttaatac tacgtcttct cggggaaggt gcaggaaaga caggaagata 6060  
 tctaaccagt cagtagggct cagaaatcaa tggctggata actcaccctt tttcatcacg 6120  
 cctgatatac ccggacttgc tgttccaaag gccatagacg acggaaagta tttgtaagac 6180  
 aatgagagcg acgtagttag gcaggacaca aactccaaca cagatgaggc cgaagagagg 6240  
 aactaggaac caaaaaaatg cgtcctggga gccagaagg agatcattct tcgtaaaatc 6300  
 gataggtgtc tcggttgaat tcgttgccca gtggaaagga tcgtcaccgg tgggaagctt 6360  
 ggttgacgtg gcaagagaag atgccagaag cgacattgct aacaataagg ctggcataga 6420  
 cgaacgcaag gcgtatcca aaccttcggc aaaggtaatg aaaaaccag tctcgtcgta 6480  
 gacttgaaac tgctttctca gggcaagga aaccacgagt aaaggaaacg cagcaaacac 6540  
 ggtcctgtac ctcatcacca gttctcctag actgctgacg atgtcgactg ttaaagtgat 6600  
 gtcgacggtg gaatcgagg tcggatcagt ccatagctga aatgatactc cgttttggct 6660  
 tgtttgccga agaggaggag gcatatacgg cgccagtcca tgcagattca cattcacctt 6720  
 gtcaacattg acgaagaact tggattcgtg cgggtctgcg atcgactggc gcaagagggg 6780  
 cgcaaagagt tctcgcgggt ctccggcttg gtgatgacgg acgacacgga gtttgtagtc 6840  
 caacaaactc gagtatagag ccgggattct cacctctgta agcattggcc tgtttgctgg 6900  
 cagacgtact ttcagtccgg cactcagaag tccaccaag cctatccgag ctttgattaa 6960  
 agcatctgag ctgtccgaaa attctgcaat ggcccaaccc ttcataggca cacgggcttt 7020  
 atcaacaact gccacaaact ggtgctctgc aaggctctcg aggtcgactt ggagatatga 7080  
 gaaaggtcta gcgcggtcat acgcgttcct cgaggtgcga gtcgatgcgg gaaggtggat 7140  
 ttcgtcgaca gcggcgttct tgcacgcaag gcgcgttgag cactgctgt cgacgaatc 7200

catattcaac	gcaaagacag	atgaagcttt	cccatttgt	agagggaaaa	cgctgcagaa	7260
gaggacctcc	aagcttcctt	gttctcctgt	tctatccaaa	cgctgatccg	tgaggagggg	7320
gaacttcttg	cccgagactc	cttgaggagg	gactggcaaa	aggtgcacgt	taggtcccgt	7380
acggtgacca	agctcacgaa	gcacaagccg	ctgaccttgc	gcaaggatcg	tgttggtgtg	7440
atcttcaagt	gtaaccaggg	tgctcggtc	tgcaagctag	ttagcaactc	aacacgagca	7500
cttgaaggag	agaaatcacc	atttcgcgtg	agcatcctct	ccgacaccga	ctccaacctt	7560
gtcaaatacc	atttcttgaa	gatgcgcac	cgctccgccc	ttggtttggt	ctgactagcc	7620
cgccgcacat	ccacaacatc	gaataaagat	ttgatgatgg	ccttgcgga	ttggtcgcac	7680
catgtaatag	aaaggtgatc	tactccgatc	catacatcag	gcacgtgga	ggtgaagacc	7740
gtgaagccgt	gagtctccgg	gacaagagac	gaaatactag	cgtaatcaga	cgggacaaca	7800
gtatcccag	aaccaccggc	aatggagata	agcgtcacat	gccacaaagg	gttgttgttt	7860
gcccattgtc	gggagtaagc	ctcgcgccag	taatcattga	tttgcttgta	agtgtggaca	7920
atgtccgaat	cgaacgagac	cggggctttg	gcgtgagggt	cagacattgt	gatgatgggt	7980
tttactgagt	tctcctgata	gttcgccata	gtcaacgcgg	tacgtgcaac	aattcctccc	8040
atcgagtgtc	caataagtat	gacggagctg	ggatctggaa	gatcggcatc	tcttcgcgtt	8100
cgccgaggg	catggtataa	cgacagtatg	tatgccaccg	cttcattcac	gtattcgggt	8160
tgatccagca	aggtttgtcc	atgaaaagct	gccatattct	cattgaagtc	gatcatgaag	8220
aaatccaggc	ttcgggttcc	ggcccttaat	cgctcctggt	cgctgctggac	cacttgccgc	8280
taatgtctcg	aggcttcggc	ggctaacgat	cgaacttgac	ggtagcttcc	tgcatgccc	8340
ggtaaaaaca	ggacgggggc	gccgttcaac	taagaggaag	ccaaaattag	catgaaaata	8400
aatggccaag	catgagcggc	ttactcccaa	attctcatgg	ttgtatggat	ccacaccctc	8460
ctccctgtac	agaaagaggt	tatatctact	cgcaaaccgc	gtatgctccg	tatcaaacc	8520
caccatgcgc	agaaagggtg	ggctcatcac	gggcaccccg	caaccatcgc	ttcccgctg	8580
aagagcggaa	aatgaacgga	caatggagaa	gaggaaaacg	caggcgagga	ttgtagttag	8640
agccgtcaaa	atagaacatg	accaaggact	gcgaaggcgg	gcaagtcgcg	accggtgagg	8700
cgagtccggc	gacgcctcga	tagcaagacg	ctgcggagtt	atcatgacgg	ctgggtatcg	8760
aggaggatcg	tgcatgccc	aggtcgtagt	ggccgaggag	agcgtcctcc	acgtactaga	8820

atttctcgag cgcggcgttg atttgccgtt ggtgtctcgg cgaagatcga tactgggtccc 8880  
 ggttctggct atctcgggga ggggtttctc tgggagttca cagccaagac tgggttcact 8940  
 gcttcgcgat gccaaggagt ctteggcgtc atccgcgtca ggcgaggagc cagacgagcg 9000  
 tctgtgcatt tgaagaggca gaacctatac tcattccagga cgcagggggac tattgggcag 9060  
 attagtgatt gcagaccgat tccgctgttg ttggttcttg acgaaaacgg caaggggtac 9120  
 aggaggtcga ctccaggaatg cgcttgcgca cagaatctgg ggctgactcc cagcacctgg 9180  
 tcaatctcgc ggaacgattg gacagcgatc ttgacggccg aactccaagt ttcgtgctct 9240  
 ctggtcgttg acaggggaaa actggaggca gctggagccc ctaggcgtct tccagacgag 9300  
 gtaacgagcg acgggccgac cggagatgtg cgcaacgcaa agcacacaac aataggcgag 9360  
 aaggaggaat caggggagag aattgaaaat gcggaacgc aacgagcgag cgtggagaag 9420  
 aaatcaagat agggagcgcg gaggagcgcg aagccggatt tgtcggcgag tcgtcgtaat 9480  
 tcggccaaaa tctcgagcga gtatcatcca atgtttcttg ttgcgttggt cttggcggcc 9540  
 tgctatctaa acttactacc atgtctgcat agacagctac gtataaatta cagcaciaag 9600  
 aaatgcctat atcctttgaa gaactgcttt aatttttaaag gggagttgat tggctggttg 9660  
 ccttaatatg gcgcatacaa taggcatatg tatttctcatg ctgcacctaa tcatcccaac 9720  
 accatattta acaacagggc tggcgggcgt caagagtgtc aatgactaat cactcattgc 9780  
 ccacacactt ctgaactcag caggttgatt atcctgcgaa gcctgatact ctgcacctgt 9840  
 ctaaacaata cgagaagcct agaaaaatgg tcatttacct cggatctgca tgtaaagtgc 9900  
 atactcaaga taatccagct catcgtcgat agccagatga ggtcggccca atgacttcag 9960  
 ggtcatatac tctgaatgca gcgcattcgg catcccttca cagcctgggg acttctacaa 10020  
 tatgagtcgc gatttccagt ttactgcttc tagcctttga aaacaagccc caccctacat 10080  
 tattccctat caactggcgt tgatattagt ccagtttgcc gtttcttctt ctctcctttt 10140  
 taacagtatc gcctagtctg cttctcataa cacagcaaac cctacccttg actctgaact 10200  
 cgtcatcatc ggagatccct attccttgag ctctaccag tactccgtcc ctttagaggg 10260  
 cctttctcga cattcaaat gcggttttag cttcaaccaa taggacagat ctattcatta 10320  
 ttgttcccag ggtcgggtcct gctgttttcg ttgctcgctc gggatatcac agagttgaag 10380  
 atctcccatg tatccaatac aaatgcaaaa ctatgggttg ttagttcact gggatctata 10440

aggacttata actccttgac aaacactgtc atagtccttg tgatgccacc caaggttcat 10500  
 gacgttgccc aaggttcaca caatgtgtc acccaaggag tttattgaga tgtgcgcgat 10560  
 tcttcttgac ttagaatgaa cacattcatt cttatggtaa tgtagtagca gataagcagt 10620  
 ataatgcggc ctcttctat atctggaaga taaatggta gaccagctg acattagcag 10680  
 ctttacgtgg gctcctggaa gaagccaaac taggccttgc ccaaacaccc gataacctac 10740  
 ctctatggt tgcgaggttc agatggtcag atagtcagcc gagattggct gctgggatag 10800  
 atctgtagct tcacggaagg cagcccaacg tatgttatct cttcaatcgg tcgaaacgca 10860  
 aaagcgattc tgttgcaggg agatacaggt gtacgaggtg actgtggctg gtactgggaa 10920  
 cgaacggttt cgcacaaact attttcattt caccgccagg gacgaattac taggattcat 10980  
 gtaagctgta gcaaactctc tgggtgtattt ggtgtgtacc cagggcttat actgtccgct 11040  
 gagcaacttg ctttgacggg atttcgtcag atcgctaaca ggtggataaa gagccccaga 11100  
 gttcggacag aacgagggat acggaatgat tgacacatct gtatatggta cgatttaccg 11160  
 cgacacaaat tcgagccggt ctccccatat agttctcgtg ctcagcagaa actcagtatg 11220  
 tttcccaagc tgaaacgagc attgctgcaa cagcatccgt ttgaagcctc aggcagtaaa 11280  
 gtctgcaata tagtatgggc agtagaagtg ggcgtccagc gctggccaga gtccagatac 11340  
 caagacaggc ttcattcatt tgcggaatct gcttgcaatg agagcagaag ttgattgtga 11400  
 acatgattag acagttgtgg tcaggtttagc atcgtgcccg caccttatag atgtactgta 11460  
 cgctgtaccc acagcgacac attgcactgc agatttttgg cacatttatt cccagcgcg 11520  
 cgctgaaaat catatgcagg atcattaaga atgcagagac ttcaattata tgcaaactga 11580  
 gcagatccgt tgagtggcat aaatttgcta tagatgaaat ccctctaaaa cgagttctgc 11640  
 gaggtgatga acgggtgtac ttggactctg attgagtagg cctgaagctg ccctcttcct 11700  
 ctcagatcgc gccatcatcg acacaaactc ccat 11734

<210> 5046  
 <211> 8160  
 <212> DNA  
 <213> Aspergillus nidulans

<400> 5046

cgttgcaacg gaacagaacc cgcaattccg ggcttttctt gaggttgaac cgaggccgtg 60

ggctgttttc gcccataaag atggcttggt gggtcgtcga aaatggactc atcgaaatgc 120  
 tcctctgtag ctttgggtgc tagttcacca aattccccat cgtcatagta gagatcatcc 180  
 tcatccggaa ttgtttgtaa tggaatattt gagaggttct tggaatctcg caggaaggtc 240  
 ttggaagagt ctgtagaatt atcgaccgcc acagatgcat ctggtgaaag aggccctgta 300  
 gaatcagggc tggattcttc ctgcttgggg gcggcaggct gattaccttc aatagttgat 360  
 gtgttcggct ggacagggct agcgacgact ggggacaaat taggggagag ccacgactta 420  
 ttcaatatat tgcccgggcc cgaaaagttc ttaaattcgt caccttcacg ggcattccaca 480  
 ttgactccag gaatctcttc ctccaggcca tcaatgtcat cgaacatgtc attatcataa 540  
 tcatcctcaa ggtcactata ttcaccattc aggcgcgctt cggctttgag cgcggttcc 600  
 ttttctttat gcttctctc taaaagtttc tcctgtgttg aggagccgac gccattcatg 660  
 tcgaaactga accgggaagc gttgcttttg aaatgttttg gcagcccaga gggctgctgc 720  
 gggagtcca tctcaaaggc atcagagtct cctacacttt tcgttggtgc accaccgcc 780  
 aacttcgctt catgactcga ttctagctgc cctcgggaag gcggtagttc ctctggtggt 840  
 ttctcgctat ccgtgataga agagggcaat ttccttgca acaccggtaa cgtatgcggg 900  
 tcgtgatctc ggttcgagga atctgttagt agggatgatt gcagataggc tttgttttca 960  
 acctggagaa cccttttgct atcctcaaag tgctctctga atactggtga atgatcactg 1020  
 tgcctcttca actgctccgg tagaggtgaa taggggctcc tctcgtcagc agtatgttca 1080  
 ggctgagccg ggggagatgc acccggttga ccagcttggt ctggtcgatg gccaggagca 1140  
 gcagataatt gtcgtcgagg gcgcggcgca ctaaagtcac ggacgatttt ccctcgatg 1200  
 cgcggtcat aatcatctgg aattggaatg atggttctgg agcctctatt cacctcgtct 1260  
 gcacgcaatc ccacgacctg gtgcgagcgt cgtttgcca aaagtgcag cggaattcagt 1320  
 agttgaagca tagttttacc tgacccttcc tgcggaacag gttccactgg ctgcgcatcc 1380  
 cgatcatttt gccggcgact agtaggcccc tcaaaccgat attctttctg cgatgccgag 1440  
 tgcttatctc ctggggacac gtccggggaa gttcgaaagc ggcgatgacc ggttggtgcc 1500  
 atggcgggct tggtcgaact tgaccgcttc gactggccgt ctacggccgt gggagtcaaa 1560  
 cgagcttttt cagaggccgg taagggtgaa ctaggcttag attcgttctc gtgggtccgg 1620  
 tctgatgttg caggggtgag cgatggttgt gaatgattag tctgagcagt cagaaatggc 1680

tctgtattgc gctcttccgg gctcgatcgc ggtcgtgtat ggttgtctga gaaagatggc 1740  
gcaactgcaa gcgtgccact tgagggtgaa ggcgcgggg catcgacagt gggaccaggg 1800  
accgttgaag ttctccatc agatttcgaa aggtattcgt ttggtgctcc ttctgcggtg 1860  
aacttctcgt caaaagtcgc agtcaaagaa gtcgaatcag gaatcagcgg tagcaggggg 1920  
ggtgctttcg gggtagggctg tgaggtagga ggaacaggcg aggcattcga cgcacggcgg 1980  
cgccagtacg agagcatggc gaactgcgct tcggggtttt cgcaggctcg cagcagtctc 2040  
cgtctgattt gattcgcctc ggactcagct ggtgcagttt ccattttgct atatgctcgt 2100  
gttcagtctg ctgaagatc tgcggagaat ttaatcaaga atacgtgcgt ggggcacaat 2160  
gccaatgcag ccagtcgaaa ccacgcgcg tatcgacggt gactaaaata ggaaccaact 2220  
aggttatatc tgaaattcta taacaaagga cgtgaccttc tcacaatata agaattttt 2280  
aaggagaaaa gcaagttatg ataactaagc aataatgccg aaaatgccaa attctaagcg 2340  
gatgctctga ggcaccagga atctagggga ccctctatta aggagtaatt cttaatgaca 2400  
gctgaaaacg gctaacgcta ttccaatccc acgatgacac ctcgaccgct ttaagcttct 2460  
taatattgtg gcatgcaaaa agaagtgtgt tgtgagcaat tggaattaaa tttggagtag 2520  
tttcctttct catgttatac gtaggctgtc ctggtggact taagagcgtg ggaataaata 2580  
ttgagcttca gcaaggccgt cgtcgaatcc ctcaggaagt agttaagaag ttcagtaggc 2640  
ggaccgtcat tacttgtgtg aactataatg tacagaattc agttattgct attttacagt 2700  
attccaggcc gaaccgtcaa tgcataatgc ttccaaccaa tacacgctaa gggaaactccg 2760  
aaacacccat acagtgttgt caacaggacg taaaataaaa cgaaaaggaa tgtgactaaa 2820  
caatgctctg cctccagcgg tcaatgacgg ctctctgccc aggatcaatc ggctgccgca 2880  
ttgtggcttg gcgtaggctc ggtggcggtg cgtaacttag atttccgttg ccaggattg 2940  
cgtccgtgta gaatgtatta gggtagacca tcggatggct atggggaccg gtcaaacttg 3000  
gtgctgata ctgtgaaaaa cctcctggag tcattgggtg ccattactg actggtaatt 3060  
gctgcatgga catccgatga tcgagagagc gctgctgaat ggcgccatga ggaccagggg 3120  
cttctgcat cagggaactgt tgacgggcag tggatggcg cggcgcatgg agaatatctg 3180  
ccatactcct tctgtaacga ggaattttga gacctgaatt tcgcttctca gcagcttctt 3240  
tcttaagacg agctcgtctc tgtgctaggg ttcatcttc ctgggacggt tcaccccttag 3300

tateccttggt ttcttcttcc ttcagatgat cgaactctgc taaaatctca gtcgtaaaat 3360  
ccgtatcggc cttggatata ttacgtcat ggcctttag ccgtctagca cgttgaccaa 3420  
gggtttcccc ttcattcca ctgtcatcag catgatccgg agtgagcgcg gcgggattec 3480  
cttgcgagta catagtcata ggacgttggg caataggcgg aggtagtggc tcgccccgta 3540  
atcgcgcgcg ccgcctacta agcggctcgc tctcttccat ctccctcttc tccatgagac 3600  
ccagggggccg tacctcgtca gtagcttgcg ctttttcggg gaaaagcatg ccaagaggaa 3660  
cgtcttcatc atcatcttca acgttaggat gagcatcagg aggttcccaa gcgagggcaa 3720  
caggcttctg ccgccgatgt tcgctctgtt tagctgtac cgcctcaagc tgaagaagag 3780  
ttgaatgcat gccaccagca ttagctgcg ttcggcgcct ctgtttgagg tcatgctttc 3840  
tttgttccag ttctgcaagt aacgtagctg gcggcccggg ataatggaac tcttcatcgt 3900  
cggtagcctc gctgccttct tcgctgctct ccgagtttct ctccgaatca ccttactat 3960  
cagaactgga ctactgtca cctacgcgta aatgggctgt accgagcgtt tccgcggcag 4020  
atacctccgt ggtaggggtg aagctgtgcg tcgcgaaaga actggaccgg agctcctgta 4080  
ccgaggggtg atgtcccagg ttaagggcgc tttttggtcg cagcttttct cgttgcccag 4140  
acatgtcttt tgagagcttc ccatgtttcg agctgctata cacctctgga cccactggac 4200  
cggcgaatgg atgggtctgta aaagcagtga caggggctgt agtggaggca tcaagtatac 4260  
tgtccagcgt cgcaactgct gaagtctgcg cgggatctaa atcaagcgat gcgctcggct 4320  
gttcgaagaa gacactggca cgaaggtag gcggtaatc tgatggcggg ctcgctccgtc 4380  
tccgatcttc gctggtggtt tggttctgat ccgccagcca gggcgcggat ttccttttgt 4440  
caggcgagac cgcattccagg agctgcgtgc ggcgcttttc tcgctgcgct tggtcaggtc 4500  
gctgggaaag cttcggcggc agattgatcg tcataggaac aggggcagga tagtacacca 4560  
tattctcgcc ctctcgggc tgtttgtatg gctggggtcg gctggcgagt ggaggcctcg 4620  
tcaacgacac ccgtcgtgca ggatccagcc cttatccat cggaacgtaa tggacaccgt 4680  
caaagtcatt gaacaggact ctagcctgct ggtatgtgct accggatgca gccgacgacg 4740  
gtcgtccat ctcgaccgct ctcatctctg aattgtatgg gtcgtgtgcg tactggttga 4800  
aatcgacggt ggacaaagga acggcgtcgg gaagcggagg aaggtaaagca tgagcgagag 4860  
gtagagtcgc tgtagtctcg ggatattctt ctagcgcagg ttgttctgag acttgagcca 4920

ggcgagtcgc cgactgaata gagtcgcgat gagagattgc gtcctgagga acatagttag 4980  
 aagcagtggc cgagcccgcg cttgaccgtc ttttttccat cttgcgaatc tcgctcccaa 5040  
 tatctgcgga gctcaaactt aagcggtcag cagcattttc cagcctttca acattatgaa 5100  
 cgtaggctcc ttgcaaggat tgaagcccag gggtcggatg attgagagga acagagcgtt 5160  
 cgggtggttg tgtttgtaga gtctccgcgt ggtgatcggc cgggggtaga ctactgcgac 5220  
 tattggagtc cggccccgtt ggacttgggt gatcggctac tacctcgtag tcgtcttcct 5280  
 ctaccatgtc gtaactggc gttgtcagcg atcgaaccaa ggagcctagg ctccgaaaac 5340  
 cgttgttttg gtccgtttct gcacgttgca gatgtttccc agccccgata tgggtccgcat 5400  
 ccaaagggag ttgctcaaac ggagcatggg gctgcggcga cgggtccccta gagtcgtcag 5460  
 aatccgatgg caactcatgc tcgccctgcg cgacagcgtt gtacgccatc tttgaacgat 5520  
 gttgggcaca cagatgcaca agcaatggcc attcaaaacg gttctgattt gttgtcgtgt 5580  
 gaccgcggtc ctgacggtct aagcaaagta atccctaaat gacgatggcc aaagctcgtc 5640  
 aggctcacag ataaggcgcc caacggtcaa cggaagttca agggatcata agggattatg 5700  
 caaagtgagg gatgagaaaa gggttgaatg attttgcaa acgaaagacg aagaaataaa 5760  
 aaaaaggaat ggacgcccgg atgaagcgag ataaaacgtc tacaataaaa ggtcctttat 5820  
 tattatcaat attgctctaa aggataatga cggccctcga agaaaaagtc cagaaacctg 5880  
 gaagaggagt cgaccctgg accatggacg accgttgccg gtcagatctg gccaaagtgc 5940  
 cagagtcctg actcttgccg gaagcaacga ctgctaattt tggataccac tgaggggcaa 6000  
 aacaagccca ataccggaat gggcgccgaa tgcacctcgt tgttggtgtc tgcctccctc 6060  
 tgattgatca ctgatacggc ttactactca ggagcgcccc aggaaggact cgagaaatgc 6120  
 attcggctct cactgattac tactatttcg tacactgcat taattcgtgg tgaacctgac 6180  
 aatggcatcc agcgaccctt cgagtggaga atgggatacg tttgggtctg agatccacgc 6240  
 ccaaagtgtc cagacacgaa cgtgcgacga tcatattcag gagccttgac cgtgcgagac 6300  
 caactgccga ggtgatgttt ctttcttaga gagcaagagc gtactaccac tggcgtcaaa 6360  
 ttcggaacga atctggtgag ctcggttaaa tctttgattc ggtgcggaat ccagtcgaca 6420  
 gtgaagactc cgccggaaac agtcgacgtc atagtatttg tactcctcaa aacgaccgtt 6480  
 gtggaccgga tcgcctccag acgttcaggc accgagacag acgacttccg atcgagtttc 6540

cacagtcgga aatacaatca tattaccgca gtcggtagtc gggcgatgat cccgcggtcg 6600  
acccgacttg ttttcagctg aatcctcgca tcgagaggcc agattatcct gctccgtatc 6660  
atgagatacc gctctgtacc tacctgcggt taggatacctc gttgatgcc a gattatgaag 6720  
agtgtcctct tatgggtagc acggcataaa taggacactg aataaacgct agtgccgtta 6780  
ctcagtcatc taacgtgcat ctcccgcaact gatactagct tttgtctcgg ttcccaccga 6840  
cacatatttg actaagcggc ttcatgtctc tcgccgtgat tcctaaggct gaattgtgat 6900  
gaacgacatt ggcagaaggc gcagtcggaa cctagtagaa tgaatctgta atcaatagaa 6960  
ccgtaccata tccagggttc agtcccatgc gccgtgcacc cacgttttgc tcagttgaca 7020  
gtacatttgt cttctgaact gtacttggt a tgccgggacgg gaacatgctt acagtaacga 7080  
cagccctttc ctccccaggc cagagagcca aaggtagacag gccgggagtc tgacagtcac 7140  
aaataccgct tagatggctt ttgatgcaag tgtccgcaag ttgccggttt agacgttcgt 7200  
attgaattgg gcggatattg ttccggttca caggctcctc agccagcaga accagttctt 7260  
cgttgatacc cctttttata gttgctgtat atgcaagaaa aagtacttat ctcatattcta 7320  
tggttatgtc aacctggaaa tatgactgtt aaagactaat ctggtagtca tgacgccttt 7380  
ttgacttagc ggtacatttt cccaatagtt tattgtcaag cacttcagtt tggtaatatg 7440  
ctccatattc tttgaatgcg agataagcat gcaatatgat tgggtgggtgc ttgccgatta 7500  
aagccacgtg ataccgcgta gcgtgacgcg atctctggtt gcttccctgc gacatgggtca 7560  
atctcgaaat tgaattgcac ctattgacat gctaacagac caacatgtct tattatgaca 7620  
tcgattcaat tctaacagat gctcaggtat ggctgagcct ctatcatctc ttaagttttc 7680  
aataatgaag gctgaacctc gctttttcac agaaattgcc atgcacattt gaactggatg 7740  
tccccgggct tggcattcta gaaggcaatc caggggagag tgtgagtttt tctctttggg 7800  
tgggaaggaa cattcacgac tgatgcaa at gagcagataa aagcgggatc ccgattgat 7860  
ctcccactat ggctgggcga aatgctttct atcgggta at tgctcctcac acctcagcta 7920  
gtgacttgac ttgtcgcgac ttgcatgtct gattttcagg aagagcacga ctagggacgt 7980  
ctcgactagt tactcttgat ataccgtctg cgctctcgga gcgcgtgatg aatgcgttaa 8040  
aggcggaccc tcggactgtc gacctgcgct cgctagcgcc gaaaaattat cggctgagtg 8100  
aaagagtcct ggagcttttt aagagcaagg ggtggtcgat aatatagcaa cgtggagcca 8160

<210> 5047  
 <211> 6786  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5047

```

atccgcaaaa acacccatca gctcgcggaa ctctgtcttcg tatagctcct ttccggagaa 60
ccgagcacgc tcgtataagg ccagaaactc caatcctatc tctggcgggt gtaggattga 120
gagcgaaatt aggtggttga tgtagctgcg cagggacatt gtgccggggc gccggaggat 180
agcgacgatg cgagtgtctg gaatgcgggt cgcttcgtca ccttcacctg tttgagtctg 240
atattgagga tggactgtga agactggatc gggaggcgca agggaaacgg ctttcgcttc 300
gatgagatgg ggcagttcgc ggatgacggg gcggtagcat aggcttggtt caggcgtctg 360
cgctccccg tctgacgttc cctgatccgg tgcagacgcc gataacgatg actccggcgc 420
tgaccatcct ggatgttcga tgactcccca cggcgggttc gaggggtcga catcgtagtc 480
gaatccccta agtaaacctt ctttttcttc gttgtcacca gcaccggggg ccgcaaaaagc 540
ttgtccgttc ccatccacat ctcttgggcc atttgaccg ctaccccgac ctagattcct 600
tggtcttgcc ccctagcaa taagtgcgct cctccctaac ccctcaacaa caagccggcg 660
cacacttttg cttacatctt ccttctcaac tggatccag gctttaggga ttcctcccaa 720
tacgctacga ttcgtgtaga tgcgcgtcgc gtagatcaga accgcaagca agaatgtcac 780
gacgtaccgg cctgttatga tgaagatatt ggtgaggcgg tgcgtcacgt agcattgata 840
aatcgcatca gcgggtgtca ggaggatcag acacaaaagg attatagaaa ggagggtgaa 900
gacagtgtaa tttaaaaggc gtgtgatggg ggtgccgttg cgaatgcgag tcgctagatt 960
tgagtttggg agtgcagttg gtcgtgatgg cagcatttca gttgtttagg ttccttacat 1020
ctcatctggg actgagaagg gtgagtttca ttgtgcatgt aatgtcagtc cgtttatgtg 1080
acgcttcttg cgtcgtggac ctggttaagg atgacagaga tgcggacggc ttgtttgccg 1140
aggtggctac cacgtgactt atagtttatt gcacggagt ataaaataat gataatctct 1200
agaaataaaa tatctaccgt ctataaccta acacagtgtg atggaaacgc actaatcttc 1260
aatagcctgc tcgtccattg ctgtaggttc atagtgtccc ccctagcac gacggataac 1320
ccgctcaata ccatcaagac ccatcttaag cacctccatt ttcgggccgt aacttaagcg 1380

```

gacaaagtga tggcaaggac tgtcgaacag gtcacgtctt ttcgccgggt tcaagtcgaa 1440  
gaagatcccc ggcacgacaa tgaccttctc gctaagaaga gcgttgaaga agttcagacc 1500  
gtcagatatg ttggcttctt tgggaagcgg cgggtcaagc gaggtcagat cgagccatât 1560  
gtagaagggt gcttgcggga cgtcttggat gcggaagccg atctcgcgaa gacgcttgag 1620  
gacgaaatcg cgtttctcgc ggaagtgggg tttgcaaggc cttcatttcc tgatgtacga 1680  
gggagggctc gaggcattgg gatggcggct tcttgaagg ggacgttggc gccaccgtcg 1740  
aggtaagagc ctgcggagcc gagggcgctc atgaattcct tgggcccgc aaccagggcg 1800  
atacgcagcc cggtaggcgg aaacgttttg tgagaccgtc gataaggaga acgtctatct 1860  
tcgtcagtat ttctcagaaa ctgtcaaacg gggccatcat accgtctttg ttcacgtcaa 1920  
cgacattcgc ggcaccgtg atggtcgtcc cgtcacagtc ggtcgtgtag ttgtaaccgc 1980  
catagaactc gtcaagaatg agagtagcgc ggtctcgaca gatgtcctga atgtgggcca 2040  
actcgtcacc ggagataaag tgcccagtag ggttccgcgg gttagaagtc aggatgaccg 2100  
acgttccacg agctatttcc tccgcgatct tatcaggatg gatgtggtag tgatcttct 2160  
gggcgagcgg catcgggatg ggagcaatgt tcttgaacag actcaacatt tccgagtacg 2220  
cagagtagtc gggaatgggg aaagagaggt atgagttgcc cagaatggcc gcaattcgga 2280  
tcaaaccgc acgtccaccg gggacaatgc acacatttcc ccaggatat tggctctcct 2340  
tgccttggcg gtagtgttca ttgtacaagc gggctacagc ggcacgaaga ggcttgatac 2400  
cagccgttgg gccgtattct cgagcggcag aggtgatggg aatagtttca ggacggggga 2460  
agctgccttc aatctcgtcg tcagcttcag gagcaccctg gccgagattg gccagcccg 2520  
aagggtcttc taagaagccg tgttcagagg cacgttcggt acaccagacg acaccggtag 2580  
aggcacggga tgcgtccagg cccgcattgg gacggtgacc ttcgtgggcg gttcgaaatt 2640  
gacgatgggt ttcagactgg agttctgacg atgggtgtta gtctggaaaa agaatagaat 2700  
agacattctg gaatattatc cggaagca aagaagcaa gacacgcacc gttgtttgat 2760  
agctccttgc ccaccgagaa gcgtcgggtg gagggcgca ggatgctcac gcggcgctccg 2820  
gagaaggaca tgatggtatg aaatacagaa ctcaaaaagg tgagctgaaa ttgtctaaag 2880  
agatgcgagg tgtgcaataa taagtâgaa agaacttga gaagagaaag tggatattca 2940  
gagaagcgac agcttttata gacgaacagc aagcacctta gtgaagaacc gagtcaggga 3000

caaggacagc tcagggcatc aggtctatcc aattctagtc gcgcatcgac cgcattgccc 3060  
 agtagttttt cccgttgggc gtccagctgg agcagaaaat gcctcattgc gaccatctcc 3120  
 tgagagactc ctgagtcctg accacgtcgt tgtgctatct aagccttccc agatcgtagc 3180  
 aagaaccttg tcaggatcct tccgatcggc tgggcccgtc cgactcggag agtatccgag 3240  
 actgccagga atggatgcga ggtcttgtct ggagttcagc ttacagaca ttatacagtc 3300  
 tctcaagtct ctctttggc caaaacataa cataatactg ggtattttta gaaagccacg 3360  
 tttttgcttc ttcaagctga ggccagcgcc gaatcagaga cggcgctggc ctctgaaaa 3420  
 gtataaatca aattttctct ccaccgctg tccgcctcaa ttgcaacgtc acggacctat 3480  
 acggagcaaa tcatctgcag tatctgaagt atctgacttt ctttttcatt atcttagctg 3540  
 aacctcttca aatgcaataa gcaagtctaa tccgttgtca aatcaacaaa agtcaccgca 3600  
 gtttcagccc gccgacaaca agaagatcca gccctaaca tgcgagaaca ctatacatcg 3660  
 cctcatctgg gaaatctgcg ggaaaacgtg cagcggtata catacatcat gcaatcatag 3720  
 tccgtggact tgggaatgcg gcagaccgcc aaacacgaat aaatgggaat tagatgaaac 3780  
 aagatgaaac aaacatcatc ataggcatga atcccttgga aggaaatggt caaacatcga 3840  
 aaccaaaaaat ccatcaaattg ttcgtaaaaa tggatatgac ttcagacctc caattatagt 3900  
 tctcttccga acgtgtgag agttgaaggc gcagcttcgg acagattctc cagccaatcc 3960  
 agttgggagt aatgagcgag cgaaatgcaa agtaggaggt aacgaaggcc gtgtctcttc 4020  
 caccgtttcg gccattgaa acaatttcgg aagagcaatc tcagcgggaag ctgagaagct 4080  
 gagataggag gggattagag atgggtgcaa acggcgtcgt ctagtctctg atcggttggc 4140  
 agaaaagttg gatctcgccg acttgacctc gtgcaagctc ctcacgatgc tgttctttcc 4200  
 attccacgaa ggcgagttga acggcctcgt cgctgtcgat tgtcaciaag tgcgcgtcct 4260  
 cgtcttggtg acgtaaacgg accgtcttgc tgccaattga gcggttggtg aatctggcga 4320  
 gtttggcgtc aaccgggtcg gtaagcgtac ggaatccgat attgctggaa ataaccagtg 4380  
 ttacatagtt ctcgtaaaag ttgactttgg cttcaattg ggtcggcatg aacggctcct 4440  
 cctcgggttc gtggcttaat ggagaagttg gctgatctga aagaggcgcg gccgctcgcc 4500  
 cgtcggagta ctgaggctca tggaaggcgt gagaagtatt cgttcgaatg ggaagagatt 4560  
 gattagtcgg ggagttattc tggctccgat tgacgggcgc cttcatgttg gccatatgag 4620

caggaatagg tggaacgggc acattgtcaa ctgtttgcat tgtgtgaaca cccatgtacc 4680  
gacgcgattc aggattgtga tggatgaatgt ccgggctgct cgccggacgca tcctctggga 4740  
cgcgctgttc gatgattggt tactacctga cattggagggc agggacgggc gttgagcact 4800  
gcgcccattc ggtggtgccc cattaaaata acccgagtta gaaccgtccc tagatgtggc 4860  
gcgagagagg gcaggggctg tgtatgggtt attgtcgtcg ccccatgggg tgacgggggt 4920  
tacctggcga ttgtaaggg atccaccgat tgtgagctcg acctggcgga ctcggtagga 4980  
gagaagtaag agttgccatt tctctctcct ggcgacatac ttccaccagg gaactgtgtg 5040  
tgtactgaca aagtcgagtc aggcattgct gggtaacggg gtcggctagt ggaaagtggg 5100  
ggaccagagc taccacttcc acctgtcgca gatcgggttc ggagacttgt actcgaagca 5160  
ttgcgactca taggaaattc ggagaagaaa gctgcttctt tcgtggactg ctcttcaaca 5220  
tcatattctt gctggtaagg gtttgggatg ttgctcaaag atttcatgta ggtaaattcg 5280  
gaatcggatg tgccgggtatt gcgagcactg cgttgctccg cttgtatctc ccgttgtgta 5340  
ttgatgtcct tgtaccattt ccgcattgta tcttcattct gatagcggat aataaagtta 5400  
tccaccacac caggggtccc tttccagaag atctgaatgc gataagagcc tagcaaattc 5460  
ttgttaccat gaggtgggtc gcaactgctaa tgaacttcgg cttacctggg ttttgaagcc 5520  
agacgatatc ggtgacgttc gccatgtaga tgcggccttt cagcacgagc cggggcttgc 5580  
ccttgctggt attcggctta tctttactac cgccgaccaa tcttgatttc tgcttgtag 5640  
ggtttatgtc cttgcagcaa agcaggattc gttcaaagag atagatgtgg tactgtaatc 5700  
gcggacatat taacaagctg tcatcgcaag tcggactgtg gagtgtgaaca tttgctcacc 5760  
tatctttctg aatctttatt gttgtcgatc ttgattaccg tcaacgtgcc aaatcatagc 5820  
agttcaccga atgtctcaat cttcagggtt ttccagtcac caacacgttc gtccagttca 5880  
acgaatgcag cggcaagttg ctcttctgca atggcgtcgt tggcggcatc taggacggac 5940  
tggaatagagt cgatggcgcg cgaaatgtcg gcttgaaggt ctgggtcctc gatctgctta 6000  
cgcagttcct ggtaacggat aatcagtatc gaatcaaatt caagtagcta ctgagagata 6060  
ctaacagata gcatcagagg atacttggtc aagcgtgga atggcttcac gaagaaacca 6120  
ttgagtgttg caggttgccc gaccatctgt tggagatcgg gggagcgcgg cgcagcctga 6180  
atcttgcctc attccttctg acaggtctta tcacagcgca tctgggttgc gataaatggc 6240

tcgtactggc ggaaagcttc ttcgtgttgg atgaacaatt caccccaatt ttgctgttct 6300  
tctggtcgcg catagtgttg ttcgagctcg atgagaaacc gctgggagaa atcaagcagg 6360  
ttgttcaaat tcaagaagat ttgatgactg gcatcaccgg tgagagctcc agtatcctcc 6420  
aactccttct tgagcgcttg caagttctgg agatggtgaa catagtcgcg ctctgtttct 6480  
agcaactcct tcaagatgtg ttcccgttg gtgagcttcc ttctgtctgc tggcgcggcc 6540  
atggcggtat cggacggttt cttcagctgg ccttgaatct ctaggatgtc cagaacccga 6600  
tttaccatct ttatgacctt ggtgaatccg attgtgttct cgccgtacaa gtctgttatg 6660  
agaaagcatt cttgctgagg aaacgccatt tcttgatgg cggcctggag gaatttaaaa 6720  
gtggcggcct ttggacgcct ggccctcgga accttcgagg tgtcgatttc cagggcgcg 6780  
cctgga 6786

<210> 5048  
<211> 5108  
<212> DNA  
<213> *Aspergillus nidulans*

<400> 5048

gtttgaatgg aggtatccgc ccatcatctg gacatgcgac ggagatcgcc ataagatttc 60  
ctccagcgag gatgggtcct gagtgcctgc catcgaagtt gcggtttcag tcttctatgc 120  
tgcgaaatgag gagtcaaaat aatacaatct ctaatggaag acgtagttct gcagaagaga 180  
agctcggttc gataccttgc tctccgcgac tatgaggccc tgtttgcaca gtttgcattc 240  
ccagtctgac gcaaataagt ataatcaatc gaaagaaaat aggttaggta aaggttcagg 300  
catcgcgaga ttcttattct gcgagcttca taaagccttg ggtactgatt caaggttatc 360  
ataataatgc aaacaaacgc caattcccac gctgaatgtt gaatccgacc catctatcgc 420  
gtctaaatat atccagttca caactaatcg ttctagaca actgttgaag atcgttgcc 480  
tgcattatat ccgccaaatc ccagaaaata ttcattgtaa tagtaatacc agcgctgttt 540  
tgcccgtagc cagcatcatt tcgctgtagc aggcataaat atgccgcaga cagtctgtag 600  
cttggtgagc atctcgccc attcaccgtc ggcgctgctc agcatggta ccgcgccctcc 660  
agcaccaatt cgccactttt gaacgtcgtc attgtcgta gatgatgtga atgccgtgcg 720  
tattaggaca gaaaagcttc ctctcctcc aaggtcgaga aatcccataa cgccagagta 780

aatccccgcgc ttccggccct caattgagga aaggtgcata caggatcggt cctttggagc 840  
tccagtcacg gaccctgggt gtagacacg ctgcaatgcc gtgagtcacat atcctgacat 900  
attcgacgac tgcagtcgtg gaaggctctt tgcagcatat cccggtcgat gtgggtcaac 960  
atgacctttg acatgggtta tcatttgata tactcgaccg tgatcctcca ctttgagaag 1020  
tttctcaaca tgaacgttgc cagcaccgca gatgccatag agatcgtgcc gtacgagatc 1080  
cgcaatcatg agattctcag ccatttcttt ggttgatcca agaattctcc gtgccctttc 1140  
cattgtcatg ctgtcggact ttcgaacagt tcctttcatt ggcttcacat ccaatgtcga 1200  
gtgtcgggtc cagttgagaa agcactcagg gctactactc acaatcttgc tatttccaag 1260  
tctcgaaaag gcactgaacg cagcaggatt gtacatgcgc agtcgtttgt ataatttcca 1320  
agggaaactca atgcggccga tgggaacatc gggcgatggt aaagtgatgg atgtctcgca 1380  
ggtaaggcac agctcgtacg actcaccggc cctcagttcg tccttgcaag cctcaacctg 1440  
atttcggtag gcattctcgc tgggaaactg gatgactccc cggcccaaaa ctgaatcaag 1500  
aaactcgtcg tcggaggcag aattctttgg ttttggcaga atgtccatac aacagaaaacg 1560  
ttccagtgtt tttgaggcct ggtctaacca gccagctggt agattgtctg cttctctagt 1620  
cgattgtaga attactcgac cagtctcatt gtcaacaaca acgctcctgt cagtccacag 1680  
aaggctaaca tctggtggat catcagcact ggcgctctcc tgagagcaat ggtcatctgc 1740  
gatgcttcca ctttcgtgtt tggggtgagc aaggcaagcc agtccaagtt cgtaggaaaa 1800  
atagcctagg aacctcccc agaagggaag ctcatagttc cccgattcga cctttttcat 1860  
atccatcaaa taccttagga cgtcccaaaa ctgagaaaac gacatggtag cctcaagtct 1920  
catgtccgaa tctttcagtg cgttgacccc actggaggag acggattggc gttgcattga 1980  
tagagagtgc cgctgtgagt agtactcaag cctccagctt cccggacttg gcacagaaat 2040  
aatgctgtat ctgccattcg actgaaacaa aactgtcgga acgcccggat cgttgaataa 2100  
ttcgcatagc ctttcagcat ccagctgaca tgtatcaaac aatctcgagg cgcaattagc 2160  
ggaagaggac aactccaat tcaccattgt gaaagcaaca tttggcaagc gagtgtcttc 2220  
acatgaagat cgaatcatat ctatagatag actcccacag ccatcacgat gacggctttt 2280  
gttgtatttg atggccatgt cccaccactt gcggagcagt tgactgcatg cttctcggtc 2340  
agacttgcag gactcaggat gaaactgcac accccagaaa ggcttctcag tgtgtcgaac 2400

agccatcggg atctgctga cagaagaaca aagatcgtct gcttgatag agagccaggc 2460  
 aagtacgtca agggccggag ttggtgaggc agccccgtcg catgaacccg actctgcttg 2520  
 accatccaac attgcatata gcgagtata cagagtgact tcgagattct gtagattctc 2580  
 aaagatatcc ctctcagctg ttgtaattcg gtgaacctgc ccatgcagag gttccggtaa 2640  
 tcgccaata ggggtgccgt aatgaagaca taaactctgg aaaccaaggc aaatacccaa 2700  
 aacaggcagc atatgcgagc tgtcaatggt ccagatatct gccataatac cgacatcttc 2760  
 ggggacattg ggatctcctg gtcttggtcc aagaacgact gcatcgtagt gttgaagaca 2820  
 ttccagcatg ttgccatcg gccattccgc atcaatcctc atcacctga ctcgagcccc 2880  
 aagaatctct tccaatcata gccgccacat tgtaagagaa agaatacata gcatccacat 2940  
 acagtatact tttctgacga acaccttggc ccgcttcctt gtcccggcga gctttcgatg 3000  
 ctgccaatc accaaggagc ggtgccatca cggatatcgc cctgaagagt atgctgagtt 3060  
 aatcagaccg agaagatggt aaacaagtta ggagttaaaa cgaggatagc gtatataatg 3120  
 atgatcgacg aagaggatca ggctcttcta tatcagaaaa cagcggatcg acaacactaa 3180  
 aagatgactg gcaggtgga ccaccatcct tataatctgat gtgagatggg catgataaag 3240  
 actagtcttg aaataaatat gttttcgaaa actctcagag gctgacagag aattgatggt 3300  
 tgaagggtggc aatgcggcga atcgaagatt tccagatttc cggggggaaa agacgaacgt 3360  
 agtggagcct tcaatctact accaggattg tcaccgtcgg gtgatccacg gttcgactac 3420  
 ctcaatttgt taattctcat aaaacaatat ttgcaaagtc gcagaaaagt ctatagtcta 3480  
 ccctatctgc caatttgaca ggacaaaaca tggcttctta actacaacgc tgtcattgct 3540  
 caggattagg cctcttggtg gcagcatggg cgatcttggc tgcaattcta gtgaagtatt 3600  
 gactcacaaa gctctctctg cagcggaatg ttagcgtctg ggcaatcaca gtcgttctga 3660  
 aaggctgcaa gggctcctaa catacgtgta atagctatgt gcagaactat ggtccgcaac 3720  
 gaggttatga gcaagctcgt gtgaaagcgt gaccaccaa tagaccatag cttcagcccg 3780  
 gtctggagtc ggtttctgga gcaatgcctt ctcatgtagt tgctggaaat agtggttaatt 3840  
 gcagaatata ctgccagacc ggttgaacct gatggctttt gagccggggg catagaatat 3900  
 gctcacggtg tcaggccgta gagcaaaaac atcggcacia tcaagcaata tagacccaaa 3960  
 caaattcaga ccaacactgt tcttggtgag aaacgcagac ctttctacag atctggcaac 4020

aagaatattg accccacacg gaagtgtggc agcgaactcc aggtcgtggc ctggtttctc 4080  
gtcgaatac gacttcaatt cattgattcg atcaacttgc ggtctggaga acacacccga 4140  
tgcgccatga gaacggctag attgtatggc ggagtgaag cttttttgta attgaagcgc 4200  
agagttaaca gccaccggag cctcagggcg aggcgggttc acttgttcag tcggaagttg 4260  
tggaggagaa gctctaggag gatcaggtaa cgaggcagtt tcacctcgga aggggttcca 4320  
agatgaccgg tccccctgc taaaatgctt cgtaaagtga gagaataggt tacgcttctc 4380  
cttgggagac tgtgtcggcg aatttggacg aacatccttt gacgacggag agtcgggaaa 4440  
gaccccgggc attgatgtcg cgtcctgagt ttgggtatc tgatctcgag cttcttcagc 4500  
cagagccagt tccttctccc gtaaaccggc acgttcttcc tccagctgtt gctggcgctc 4560  
ggtctccgcg atctgagcat cgtgtgcctt ttgctttaga atgcggtcga cattctacag 4620  
ttacatcgtt agcataccgc tagaaaccac gggaggtaat gcgtctttca tacgtagcca 4680  
cgccctctga gctccagcag atcagttttc aaaagcattt ccagggtcag agccgaatgg 4740  
agctttggtc gtgcaagaat caatgaggaa agcgcttgac tgatttcgta gaaatcatc 4800  
ttctctgggc atatccgcat gatacactct cttgaaactt ctgtaactat tgcctttcgc 4860  
tcctgtgtgt aggatatacc acgatttcga agtgaccgtg tgagtgtgat ggactggact 4920  
acttgcacgt tgaggttctt atcaagccat cggctgtcat gccggatact atgagcgggc 4980  
tgatcgtgga gaaaaagcct tgagcgctct ttaatcaatt ctatcaatta gagtgaaga 5040  
cgttgatcag tagccggggc cccccagtac gcgcgttctt gtggcggact cgtgacaacg 5100  
gcgggccg 5108

<210> 5049  
<211> 3358  
<212> DNA  
<213> Aspergillus nidulans  
<400> 5049

tttggcgtct ataacgacag ggcattctgc gggaacacga taccctccga tctctttggg 60  
gaccgctgta cattcaggaa gggagaatgc tgcaaagtcg caatcttatt agagggctgc 120  
aagattatct gttggtaaag gggaaataag gaagaaactg accgaaagcc ggcgacaagc 180  
gcatggcctc catcacggcg aagttcataa gtgtatcctg tttcgagaga tattttccgg 240

tctcgggtatt aatatcgatg tcaactatcgg tgtctgggggt gtgagtgcga gtctggatat 300  
gcgtctcaat ctccgctcga agcttctgct ggaaagctgt attgacagct agatgctcga 360  
acagagtgcc gaggactgcg gacgtgacgt cgacgttggc gaagagaatt tcatctaaag 420  
tgtgtaggaa ctggatgtat caacgcgtca accgtatatac gaggataggg tatttccttt 480  
gggtggggccg tacgcacctc ctcgagtttc agatcacctt tttcaacacc atgatatac 540  
cgctcggcag ggcatgcctt cgaggcccc cgagcagact gaattatacc aagattgaat 600  
tccatccatc tagaccggaa ttcttccatt cgtttggcgg ctgcacggtc aaaccaacag 660  
cctagccttg tcgccagacg tttgttggcg atcacgtcat gcaggatgac ttcgtggagg 720  
acatttaggt ccaataaggc agagaaaagc tattgacggc caggtcagct atcagcccat 780  
ggcccataaa aacaaagatg atcttaaatac gaaggaggta ggatgtgtga gctaccttat 840  
catcgaaaat ctccccatac acaaactccg ccgcaagccg gagcggcaaa aaacgacagg 900  
gcttcttgat ctccagggcg aacccttttc ccgttctgt tccttgcaat ggcatcat 960  
caagccaccg gtcgatgctt gcgctcagct ctgggatcgc ttgccgcgct gattgaaacg 1020  
agaacgcggg gtcgaagtag cgacggatca ttgaccatct ttctctgct aatgcgccga 1080  
ccgcatggcc gaggaggctg caggctgcgt cttagtgttc acagcaagct agttattgta 1140  
gatgcggaag ggaagggagc gatttaccgc ctaaagtaat ttcccatatt cagatacagt 1200  
ggcttaggat gatctgcaac tcccgtatca gtacccatc caacctcagg gacctggctg 1260  
gggttcaggg tgccagggag gcatacgctt agtatcacc ttgtagaagt cataaatgtg 1320  
ctctggcttg gtcaccacca gctctcttgc tcgaccattg cggatgataa acggctcgtc 1380  
tccagcgaga gccttgccct gatcggagag ctgcttgctg atgaccattt cttagctaga 1440  
tcccgcccat gcgctgcgag atatcgaccg cgatatacaa cagattctta cctgaaagcg 1500  
aacttcgcca cgcgggcgtc tccatgaagc tcgcagattt gcctgccgta ttggttggtg 1560  
attctgttcg ctccgtgcct gcggattttg agtacaagca ggacaaatag tattaggaca 1620  
aacaacttga agacctgagg actggccctc agcctctggt tctcctgatc ggatgcctgc 1680  
gttagagtat taacgaaacc catttttggga gaagaaggcg tccagatagg tacgtgtcta 1740  
ggatggaaaa cttcacgcgg gaatgcttat aacgaaggcg ctacgccagg aggctttgat 1800  
cttcaacccc acgacgcaca gaagatgatg gactggattc agtcgcggga atggggctct 1860

atgattttcg ccgaggaccg cgacatgccc tcgatcatgt ttcgaaaggt tacctctgcc 1920  
 attgcgacgc agagcaagct tgggttgact gccacactcc tacgtgaaga tgacaagatc 1980  
 aaagatttga acttcctcat tgggtccaaa ctatatgagg caaattggat ggaacttgca 2040  
 gagcaaggac atattgccaa agtacaatgc gccgaggtat ggtgcccaat gactacagaa 2100  
 ttttataccg agtatatgcg ggagaaatca agaaaggctg ccctattata taccatgaac 2160  
 cctcgcaagt tccaggcgtg ccaattttctc attgactacc atgaaaaaag aggcgataag 2220  
 gtcacgttt tctcagacaa cgtgtacgcc cttgagaagt acgcgctcaa gctgaagaaa 2280  
 gcctacattt acggagggac gcctcagaac gagcgtatgc gtatcctcga gaacttccaa 2340  
 cacaatgaac aagttaacac aatctttctc tccaaaattg gcgatacatc cctcgactta 2400  
 cctgaggcaa cctgcctcat tcaaattctc tcacattacg gttctcgccg ccaggaagca 2460  
 caacgtctag gacgaatcct ccgagccaag cgccgcaacg atgaaggctt taaggcgttt 2520  
 ttctattctc tagtctcgaa agacacggat gagatgttct actcctcaaa acggcaagcg 2580  
 ttcttggtcg accaaggcta tgccttcaag gtcattacc accctgcaggg tattgaaaat 2640  
 ctagaggggc tagcatatgc cacaccggca gagcgcccg agctattgca agaagttatg 2700  
 cttcaaaatg aaagttctgc ggacgtcgag aatgtcacag acgacctctt ctctgaacgg 2760  
 tctagtggta acagggcccg gcaaagcctg gcgtcaagcg gagctgtcta cgcttagtgg 2820  
 gctggctggt ggtgaggaca tggcgtatat cgagtacaac aagagcagaa ataagcaact 2880  
 caaggagaaa cagcatcacc ctctgttcag aaagctggag cgcgagcgcc agaggagaaa 2940  
 gaaagagatg gagaatttca atcgataggc tgctgtttac atattgtgta catgtggcag 3000  
 aatgcattaa gcaacttaaa tgcaaaacat cgcttaaagc tgatgatact ggtagtttac 3060  
 cgctatccgt aagaaagctc ctgtttactc gtttcaatga ttgcagttaa atgaacgcta 3120  
 aacagtgctt gttacctgat aatgtaaagc ccagttgcca catacgtcac gtggtgatag 3180  
 agcgagtggg gcgatcccca acagcttcaa agatcggctt caagaacatt cgaagctcat 3240  
 ccacccaaaa cactttctgc ttgatacatc ctgcaaacta tcaaacaagg ctacactat 3300  
 acaccttcga tctgccaatc tatctctgga tattagtctc agtatggcag cgaggaag 3358

<210> 5050  
 <211> 3453

<212> DNA  
<213> *Aspergillus nidulans*

<400> 5050

ccgtatgcgc cgtccgcttc accgccagac gtaccagcaa caatggtaag gcactctccg 60  
caacacttcc tcagcgcgtt gaaacggcgg cctccgcctc gcatgtactc cgtcgatcgt 120  
gtgattagca caacaaggctc accacctgtc tcacaggcac acgtggatcc ccggggccca 180  
accccgccaa ataggctaga cgatccctg acgatgagcg gcggccggca tccaaccacg 240  
aatgggacga acggcagctc tggcgccacg ccagtcctgc gctgaagaac ctctgtcct 300  
aaactgaggc cgcggcgcgt atacttggtc gtagagagat caagggacgt gtatgatatt 360  
tctttcgcgt ttgtgtattc tgttctttct tctgtcctct tcctctgggt tctttttctg 420  
gcatgggaaa aagcgggact tgggttattg tttagcatga tcacactaga atttttgttt 480  
taccatcggg gcatgaaaag agttgggggt ctgatgagat ctatatcttt ttcgcacttt 540  
tttttcgcac ttttttctt ctcacctttt ttacctttt taccatttct ttttctttcc 600  
ttttgaccct ttctctcgc ttttgtttca agtgaatctg ccgctttgggt ctgcactggg 660  
atgtgcatat gatattggag ttcacgagct tattggtgct agctcgtctg ctgaggctta 720  
caatcgatca aatatgaaac accggtctac gtctgtcttc cgtattaccc ttgaaacagc 780  
gaccaacgcc gtccagcggc cgatcgtgga tggatcgcgc tggaggattg ccaagacggt 840  
cctgggctaa atcctaaatg tttaaagctg cggcagcctt agcgcttcat ttcataatcc 900  
tctcagaccg aggtcagtgc tcatgtcccg tcccgtgttg tggtgcgagt agcctagtcg 960  
gtagcctaga ctgcctagtc ccagtaacga tcccgataat tgtgcgtgta tagatgtctg 1020  
gcgacgaatc aggcaaaagt ggcgagatcg tcaggcgttg ccacctgcag cgccgcgggt 1080  
gcgaagtcca ctgtctgttc tcagttctcc ctagggcact ctaggggacg gagccctccg 1140  
tatttcgtgt ccgcgatctg ggcgacctgg ggagaattca taattcagtc ttttatcacc 1200  
atcacatcat ctggatcgcc actacactga tgcacaaaat taactggatc aattgacaaa 1260  
ctgatcaaac tgaccaaatt gatcaaattg atcaaatttg attaaaactt tgagccaaat 1320  
ttgttaattt tccaaaattc acgttctcgg ctcggcctgt aatgttcgaa tctgtaatct 1380  
aatgactgtg acgcagttgt cctcgataaa cacctaaagt aatttctttg gtgactgac 1440  
agcgaccgcg tccactatgc caatgttaca tcatcgcggc tgggggctta gacctgttc 1500

cagaatccag ctagaagaag taatttcaga gctaattacc ccggcaggca tagattacgc 1560  
cgtgctccgt gtgccgtcgg taatttaccg tcacggaaga cgggcgacgt tctggaaggc 1620  
tggaagaagc tgaagaagca cagcagaaga agccgtctgg aaagctgaaa gacgcctatc 1680  
tcgactcaag gtctctgctg gccttgctcg acgtttgttg gactgttgga ctctgttgga 1740  
cgtcgtcttg gacggtgttc gtcactctcc gtctctgcgt agttgactcg ctcaaaccctc 1800  
tacaatcctg gtaccgttcc tttgggtctta tcccaaacc atcctaacc tcctaaccctt 1860  
cgtacccttc ctacacccat ccttactggc cccttcgctc ttcttcccgt tctcttcgct 1920  
ctcgtcgcgc tctgggactc tgaccctcta gattctctcc tcccttcttt cttcttctcc 1980  
tcatcccttt attcgaccgt ctgctcgccg ccctgctctg cttctatctt cgtcccgggc 2040  
ctgacggtgc tcttaatcat tctgcgcccg tccagtgtta ctgactgact ctacatctcc 2100  
aactcatcg tacaacttcg tcgacttttc tcccgatcga tcttccctct ccacccttac 2160  
cctctgctgc tttctggcgt tcagtctcgt ggcttttttt tttctccgctc tggccctatc 2220  
gctggcccac catgacgccc taggatccct cttctgtct tttgacatcg tctctccct 2280  
caccagtcta gtctgacggt accactctgg accattctgt attatctgta cctctgtccc 2340  
ctctgtactc tttgtacca tcggcattaa tctgcttcgc tacctacca ccccttttgc 2400  
gtatcggttg ttggtggtct atctatcatc cgtgactcga gggtccctgg gtggcagatt 2460  
gatcgggcgc atttcgcccc gtgggagact ctacagctcc tcagcagtea cgcccgaat 2520  
tgttcttttc ttctactcc tggttttttt tgccgattct tttctggctc gtcactctggg 2580  
acgaccgtca atgtgagttc aactgtacc ctgtttcgtc attcgagcct cgcgcccccg 2640  
tccagtctgg tctcgctgg tcgacgggccc gtacaaagaa ctgcagctgc ctgagatagg 2700  
cacttttgtg tatggagtgc gcctgcgttt cccccccctt gggtcgtaat cttggtggac 2760  
gaccgcacca acaattccat tgcgcgccc tgcgcttttt tccacgcggg ttcgacgcca 2820  
gttcgtcgcc aatggtccct cgctgcacc tcattcggtg ccctaccct actctaccct 2880  
actctaccct gcctctgct tgcgcccct gcgtacactt cttggaccac gaccctagac 2940  
tggaacagac tctgacgcaa tgcaagacc tgaatacagc cctaaaaatc gtcgcttcac 3000  
tcaaaaaaac tgtcactcct ttgaccgatc tcgcctggtt tcttcgcct ctaccatctt 3060  
gaccgtcttc ccgcatcatc attacgcacc attcctcgca cgcgcttcgt ttctgtgcgc 3120

cttcttcacg agagcctgcg ctgcctggga ctctcgagct atgagggccg tctagactgg 3180  
 gaagagtgtt gtcctcctgc tccttcgtat agataccgct gtcgagtgat tcagctggct 3240  
 ataggcgccc cgagccatga ggcgcccgga tctgggtgac acgatggatc acatcgactg 3300  
 cgctgcaatc tatatcgatt ctcgatatcca gtcagagcga tgggtgtatc caggctctcc 3360  
 gcgcgaatcc ctgatattcc ccgacgaacc cgagtcactc cggtcggatg tcgaagtcct 3420  
 attgggcgtc gctcggcgaa gtatgtcttt ctg 3453

<210> 5051  
 <211> 5494  
 <212> DNA  
 <213> *Aspergillus nidulans*

<400> 5051

gtaggtaacg ccgtccaggg tggagaggtt atccaggtcg agcagctgga cgaacttgcg 60  
 gacgtactcg ccgcccattg aggtgatgga gagctcccat ttgccgctcg tggagttgta 120  
 ggtggaagtc gcgtcagaca attccgaggg gatctgccat gagagatagg cgcgttcacc 180  
 ctgcgtggta tgcaggccgt cgtagatggc ttgggcaaca gcgacgccct tagccgagac 240  
 ggtaccgttc tgcgccggct ggtaagaggt tgagctgtgg tcgtcgcgct tccggttctt 300  
 gccgtgggtg ccgcgcttgc tgaagccgaa accgagcgag gtagacgtct gcgcggcgca 360  
 gtagtagggg gtgccgatga tggaggtcag gttgaagttg agcatgcaaa ggtcgggtacg 420  
 cgcgacgacg ccatcagtgc ggccgtcaag cgggtcgcag gcggcgatag tcgcattgac 480  
 gatcttggcc agctcgcagg ggggcggggc atagtccagg gtgtgctcga cgacagagga 540  
 gaagatatgg tggacctgtt gctgggcgta gcggaaggcc ggggcgccgg tgataacgcc 600  
 gtcatactcc tcgccccagc gctggacctg ggacataccc tcgcggccac cgtccgagca 660  
 gccctcgtag taggtgtaga cttctctctc cgagccgata ccgtagaaac cgcgcgtag 720  
 ttccttacca agcaggggtca tctcgccgag cgcttgtag ccgaacatat ggggtggcatc 780  
 ccagtcgacg ctgccattgc ccttgaggac gatcgagtcg tagtcgttgt tgaaggcgtc 840  
 gtaccggcg tcggtggcg cagagacggc gccatactca agaccaccgg tggcatccga 900  
 gttgagggtg tagccaccgc cgccggcaac gtagaagcgg ttcttgaact ctgtcggact 960  
 agggaaagcg tactttacga tgacggtgtc gtccttgccg gggtgagtat agctgactgt 1020

gatattgcag tagctgtacg aggtcgaacc gccgccgccc attcccatgg caccgcccatt 1080  
ggcgccggac ggggacgagc tggagctgga gctagcattg taaacgcttg cggtgacagc 1140  
cgacgggatc agattgatgc ccaggagggt gccgtcactg ggcaggatgt tcttaacgtg 1200  
cgagacagtg cagacatctg agagagaggg gcccgaggct gtcgaggcca gggccaaaag 1260  
agcgttgctc tgttggcgca tggtaatgac tggactgtta aagtaacgag tgacaagggtg 1320  
agtgtgcag tacagattgc catgatctgc agcagtctat ataaactacc agccatgggtg 1380  
ggagggcagg aacaatagca tgctgcctag gtggatacgg ctccgggtcc taatacagtc 1440  
cagtttaggg ccggctccgg aactcgtcac gcaattgcgt ggcctctggg actggggagc 1500  
cttgtggctg agcttgtaac ggtagctgga aggccaaaac agggctgctt gagcagtcga 1560  
aaatttgctg tcagagctgg cgcgaaaggg aggggtgggtg cgcggatcat tgactaccgt 1620  
agtagcccag cccgaatttc gaaggcccga agtttctcca gccggatctg ccaaatttta 1680  
tcttttttac tgggattttc ttcggagatt gaaaattgat aacggccgtg gtgggttaac 1740  
gccgtcactg aagaactgat gtgacctagg gactgcggtc tctcagccct agaccctatc 1800  
caggtctacc aagtagacat agaaacgcag ccagcacagt ctccgccgcc acgaagatcg 1860  
ttacgccgtc cgtttgacaa gcttagagta agcttagatg caatatatgt cgatcagcat 1920  
acgcttttcc cgtatagaga atgtggttgt ggggtggctgt gggaaatttg tgggaattgt 1980  
gggaactgtg ggaaggccac caagcaacat cggacgagtt aattcattct ccttgccaag 2040  
gatctagagt atcatatcat tctcattaga ttagattaga ttagaggggt agacaaggta 2100  
cggctctgtt aagcatgttt gggttcttag caaactgacg tgtttgggcc gctggtgtat 2160  
gaggtagaac agcagatgtc tccttgagtg tcccaattgg gccctctggt tgtttctctc 2220  
caaaccaagc acggccagaa tacgagaaga ctgtcagaga ttgcttgacg gctggtcctg 2280  
tgcatgtctt ctgagcaatc acccgagggt gtcgaagaga atcccagtc ttgcacaact 2340  
gctacccagt ccaaagagaa gggaaaagaa aaagagagag agaacacttg ggagaagaaa 2400  
agaaagatac gtcagtaaaa aaaaaagact caattaacca tccagagcct gcacgactct 2460  
ggcccactcc ccgaatccat aaggccccgg cacagtctcc ccgtcaaaca gactcgccag 2520  
caccacgagg tccccctgct cgccctccca aggctctctg ccatgctgcy caatgacatt 2580  
atcaaagacc agcacgtccc cgtcctgcca ccgatgcagg acgcggatct catccgtgat 2640

ccgcgccaac gtcgccaggt actcctccgg gatcggagtc ccgtcgccga atgtctgaac 2700  
 ggcgacgttc ttccgaccag cgccgcttcc ctttttcgcc tcaaggctat tcttgtagta 2760  
 cgctgctagc ccagtgaaga gcgtagggag gttggtgccg ggctgtgtgc ggatcacagg 2820  
 gaggtggtga gttaggggta gcacttgcc tggccgtct gcaccgtcgc tccattcaaa 2880  
 cgctgtatac ttcccgcgtc cataccgagc aatctgcgcg tcgaccttcc ttctttttgc 2940  
 ctgttcgtcg tcttcacga cgaactcctt cccgaacgcc tgtctcagcg tcgacctgcc 3000  
 cacgtactgc ctctcaaccg tgtacgtaac cgaactcttg accccttct ccacgagcag 3060  
 gtcaataaac tcgggtatct cagcgcgcg cgtatggaac agctctagac tcgatgagat 3120  
 cggcgtctcc cctcccttct tggcgctcg attcgcgtag aagaagacat actctggtgc 3180  
 gtgcgggacc tgcggcgatt cgttggtggt atagatgcgc acctccttg gcgcttcgtt 3240  
 cgcgggcgct acattagggg ctagaagtgg tcggtcaacg acgatgccga ttatctcgtg 3300  
 agggctataa ccgaaggcat gggcgaaggc gctgaagtcg gaagcagagt ggatggggag 3360  
 gccgcggaag aggaggggtc cgtgctgtgc gagaaggac gtaaggattt ttgtgcgctg 3420  
 aagggaactg accgtcgcaa ttgcaaatt cagagtcggt ttaatagatc ccgatggctg 3480  
 gagggcgaga ggaatcggcg tgtttggggg atgaggaggg ccgaggatgc gctgggtcgt 3540  
 ggaggggagg ctgaaagggt cgaaggtag gaccgaagtc tcctttgtgt cttcgagggt 3600  
 gagggagagg agatccagct gctcgacagt ggctgtcatc tttcctatgg taagtgggtt 3660  
 tattctcgtc ttttcatga aatagttggg aggaggagt atcgttgata agggccttgg 3720  
 gctggattgc ttgctcatc tccccgcaca tcacgaatct gtacgccccg gtcggcattg 3780  
 gaatctcgtc tacaggggtt ggaaagggtc taatgtacat ctcttatcac tcgtcgacgc 3840  
 tgaagtaatc aatccttctt tgacgttata cggaattag ctaaagttca tattgctcat 3900  
 tctccgcct gattaccaac cctaagttcg gcagaaatac ataccacag acagtacaac 3960  
 tctgctaata tgcaccactc caacacttca tccccggtaa ttctgcagga aaaagagtca 4020  
 agatggccca agacaagctg aagaatatcc cagagacca ggtctctcga cctcctccc 4080  
 cttcaaacc gccctcctc acccagggcg tccatagccg acgcatccc atattctttc 4140  
 gcagcacgct cttcaaata ctcaccgttg gcctctgtgc cttttgcgcg ccaggtatct 4200  
 ggtcagccat gaacggcctt ggagtcggcg gctcgcagtc cccgaatctc gtgaacgcag 4260

ccaatgccct cctctacgcc ttcatgacgg ttacctgctt cctcggcccc ttcttgacca 4320  
 acctggtcgg ctttcgatat accctgtcac tgggctcaat tggataccca ctctatgcgg 4380  
 cggggctgta tcttaacaac aggaccggcg cgacatggct cgtctatctt ggctccgtga 4440  
 cctgcgggat atcagcgggc ttcttctgga gcgtcgaggg agcaattgcc acgggggtatc 4500  
 cggaagaccg caagcggggg agatatatag cgacgtgggt tacgttccgc aatttcggca 4560  
 atatcattgg cggagctatc tcgctgggaa tcaatgtcaa ccttaatcag cagggaacagg 4620  
 tggggtacca gacatacctg ggcttcacgc ccattcaatg tctaggggtgc ttgattggac 4680  
 tcttgctatc gaatccagaa aagggtggta gagatgacgg gacggagatc gcggccagta 4740  
 ccgacactat tcattggaag acagaggcta aggcaatgtg gaagagaggc aaaagcaagc 4800  
 ccattctttt gctgacaccc ctattctggt actttggctg ggtccaagcc taccggggca 4860  
 catacctcgc aacgtacttt actattcgat cccgagcact gggcagcttc ctctctgcca 4920  
 tcgtcggaac aatcgcaacc tggctcgggtg gctccctcgt cgatattccc tggacattga 4980  
 accgcaagca ccgagccctg gcgacgtgga cctcatcgc cgcctcaac agcacaacat 5040  
 ggatatgggc cgtaattatc cagaacgaat accgccacac taaccctgtc ctgcactggg 5100  
 acgaccagag gaccttcggc cgggggttcg gcatatacct ctttgagcga ctgagtgtgg 5160  
 ggatcgtcga aaactacata tattggtgta ttgggaacct ttccgactcg cctggtgagc 5220  
 agatccggta tagctcgtc ctgaggggga ttgagactgc tggagtggcg gtgggatttg 5280  
 ggggtcaagc tgtgccgaca accttgattg tgacggcggg cattaacttt gggttatggg 5340  
 tcttcgcact tcccattagt ttctgggcca cattaatggt tgtcaggaaa tttgaggagg 5400  
 cggcctggaa cagtgcgggt cggtaggta ttagcagatc atacctacta gtaggtaagc 5460  
 tactaagttc gtatgtctga acgatgtgag gtat 5494

<210> 5052  
 <211> 5956  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <400> 5052

gctgaagcgc gaagcagggt cagcacaatt tcttagatgc cttcaatcac cagcgaacct 60  
 ctcttagcga tatccagcac gctcttcac tatctgagcg cggcctcttc aatacaacca 120

tgatctacaa gcccaagccg atgatggata ctcacgaaaa gcgaagtctg gtgattgaaa 180  
 gcctcgccgg cgaagatcct accgaatatg atgtacaggt taaaattgtg agtgacgata 240  
 aaagtctatc actagacctt gaatacgcca ccacttttat cgacgaaccg tcagccccgac 300  
 gcctgttggg tagcttcggc cgcg cattat cttctattgc cgcaaaccgc gacgcaaaca 360  
 tcgatgagat tgatgtgata ccaactggtg acgttgaagt gcttcataatc tggaactcaa 420  
 ccgtcggaga gactgttccc ggcagtatac acgacaagat tcatgagcag gctctttctc 480  
 agccaggggc ccaggcagtg tgcggctggg acggggagct gacttacgct gagcttacag 540  
 gcatgtccga ccggcttget catcacttac gaaacttagg ggtgcgtgag gaagtgatgg 600  
 tggggctttg ttttgataag tccatgtgga ccattgtgtc catgatcgct gttctcaaata 660  
 ctggtggtgt aattgtgcct cttgggggtc agatgcctgt ccagcgtctg cagcatatcc 720  
 tgaacgagat cacagcccca gttgttctga ccatggacaa acatgcctcc aaactcaggg 780  
 atattacctc tgccaacgtc ctaactattg atggtggatt tatagcaaca ctacccaacc 840  
 cttgtcatcc cccagcgag agtagtctga catctgaaag tgcggctgtg gtcataatac 900  
 cctcaggttc aaccggtaca cccaaggggtg ttgtcctcac acatgggaca atctgcacaa 960  
 gtatagaaag ccatgggcca aaacttcaaa tgggtccaaa tactagagca ttacaatact 1020  
 ccgcttatgt tttcgacctc agccttctcg atatcctgtc tactcttcgc ttcggcggtt 1080  
 gtgtctgct cgtctcggag gaagatcgtg ttgataccaa cagtcttact acaaagatgg 1140  
 aggctatggc cgtgaacttt gcagtcctca cgccacagc cgccagtctt attgacctc 1200  
 ggacagtacc gacgctgtcg accttagttt tagccggaga agttgttcca cacagcgccg 1260  
 tcgaaacctg ggcaagtcac gtcacctct ttaatgggta tggaccagca gaatctacca 1320  
 ttcttgcgac taccaacggc ccgattattg agaaagagca agcttctagt gttggcacgg 1380  
 cccttgctgg cgctatctgg gtggttgaca cacaagatca caaccgtctc gttccattgg 1440  
 gcgtagttgg tgagcttctc atctcagggc cgctagttgc acgtggctat ctaaatagaca 1500  
 ccgagcgaac ttcacaatcc ttcacacgg atcctgcctt tgtttctaaa tacggcttcc 1560  
 attcctgggc tggaaagcga atctacaaga ctggtgatct ggtcaggcaa gatccgactg 1620  
 atggttcaat catgtttgtc ggccgagcgg atggtcagat caagatacgc ggtcaacgtg 1680  
 tcgaggtcgg tgagattgag tactggcttc ggcaacactt cgacacccaa actgtcgtg 1740

ttgacgttat tgggtgcaagc acaggcgacg tagccttagt ggctgctatc gagttgcgca 1800  
 ggatcgggttc agcaacgaat gtgtcttttc tggacgtcaa ccatcagctc agagaatcat 1860  
 tectacagct gcaggcggcc cttctcaaag cattaccctc atacatggta ccctcaaagt 1920  
 acattcccat caagaacatg ccaaatacag cctctggtaa gctagacaga agagcacttc 1980  
 gaaccttgat agggggccta aaagaggagc agcttgacac gtacagcctg gctgatgggtg 2040  
 gcaatgtcgc gctttcgact gagaccgaac gccgtttggc cagagtctgg gtagccgctc 2100  
 tcaacacctc aaaagaattc ggcgccaacg ctcatttctt ccgcgttggg ggtgactcgg 2160  
 tcaactgctat gcgcctagtc gcttttagctc gaaccgcaca gcctcctatc ctgttatctg 2220  
 tcagtgcgtt attcaagcat ccggttctct cggacatggc caatacaatt gctaattcag 2280  
 aatccactga gaactgtcaa tatgacaacg atgtgccacc gtttttgctg ttgccctacc 2340  
 ctcaacatga gagacaggca cgtctccagg agattgcctc gcagtgcaaa gttgaagtcg 2400  
 acgtcattga agatgcttac ccgtgcacac ctttgcagca aggtctcatg gcaatcacag 2460  
 ctcaacaccc tcaggcatat atcagtcggg gggctctccg tttggaagac accatcgatg 2520  
 agtctcgctt ttgccaagct tggagaacgt tgggtgaact taatccaatt ttacgtactc 2580  
 gcattataca agatcccaag gctgggtgaa tgcaagtggg tcttcagcag caaatataca 2640  
 tggataaacg tcctgtccga gctgcgcgtc ttatatcgca aaggactctg caaagcccat 2700  
 gggcttcgaa gatccgttgg tgcgtttgcc agttgtaacc agcagacagg cgcgattctt 2760  
 cgtttggact ggcccccata gcacgtatga cggatggaca gcccgaagt tgatggaggc 2820  
 tgcttttgca ctctactcca ataatccgc gccgtcttcc catccattca ctgcgtttgt 2880  
 gcagtatctg cagtcaaact ctgccgagga gaccgcgcac tactggaagt ctcaactcga 2940  
 ggggtggcata ggccctagct tccccgggtc tccgaagaac ggttctccca ggaagctcag 3000  
 aattcaaagt tgccgcattc ccgccaataa cagcaatgac ttactctct ccacgctcct 3060  
 gagagctaca tgggcactaa tcctgtccca ggaaactgga agccaaatcg taggcttccc 3120  
 aacagcgctt tcaggtcgca ctgctccagt ggatgggatt ctggacgtct tggggcctac 3180  
 cattaccact gtgcctattc gcgtttctgt tgacctgcc cagagcctct cggcgacttt 3240  
 ggcctcaatc cagcaacaag ccacagaaat gctaccgttt gagcatgctg gtcttcacaa 3300  
 cattagccgg atgacgtcgt tgccctctca cttccagcat ctttttgcg tccagccgcg 3360

agttgaccgt ctcgaccagg caaactccgg cttccaagga cttacgcctg tgccgtttga 3420  
 gacatatgga ttccacaatt atcctcttgt aatagagtgc agcactaaca tgaccgatac 3480  
 tgacagtgct gttgatttgc aacttcaatt cgaccctgct gtcctctctg tggagaaggc 3540  
 aacaacgatac ttggaacgct ttaccacagt atttggacag ctccagagcg ctgcaaatga 3600  
 agcgacatgc gaggtcctgg taagcgacgt tatcttcatg acgccggagg acctgggtcg 3660  
 gatccagaaa tggaaaccatt tcgatgaaag aatgaccatg gctgatggct gtatccacga 3720  
 tctcgttcat caccaactac tttcttgccc cgatgcgcag gctgtccatg cttcgacgg 3780  
 acatttgaca taccgagaac tccatcgtct tgccaccga cttgcctacc atcttgaagg 3840  
 tctaggcgta ggtccccaag tgccggtcgc tactattttc gaaaaaacca aatgggtggt 3900  
 ggtcacctac ttggccgtac taaaagcagg aggaacaata gtgccagtca atcatcagca 3960  
 tccaagcag cgtatgcagg ctttggtgca gagcatcgtt actcgagtca tcttgacctc 4020  
 acaagaccct ggacgcctcc aaggcttctg cactggctct gttctaaagg tcgatcaaga 4080  
 ctttttcacg cagcttctg attccgacaa cctcaccca gttgtacaag ctacagactc 4140  
 cgcttttctc attttcactt ctggttcgac agggaccagc aaagccgtgg tgcttcaaca 4200  
 cggtgccatt gtttcgagca tgggtacaagg ccacggctca ctctacgaa gccccgacac 4260  
 tcgagcgata cagttctccg ccttgaactt cgatatcagt atcgccgaga tattcacgac 4320  
 tctttccttt ggtggctgtg tatgcgttat ttcagaagat gatcgtgtca gtcgcctcgc 4380  
 ggaggcaatg gaggaggctg ctgtcaactt cgccatcctc acacctacag ttgctagtct 4440  
 tctcaaacct gaacagggtgc cttctctcag aagattgcta cttgtgggag aagctcttcg 4500  
 cctgaagtt gctgagccat ggagctccag tcacgtcgaa cttcacaacg cgtatgggccc 4560  
 tgcagagtca agcatcctga cgactttcag ccagcgcatt agggaccag ttcaagcacc 4620  
 caatatcggc tttcccttgg cacatagtaa cctgttcgtc gttgatccgt ccaattacca 4680  
 caatctgctt cccgttggca tggtcggcga gctgcttctc gaaggacctc tgtagctcg 4740  
 ggaatatctt ggggatgcga agaaaactgc cgaggcgttt gtgaccgacc cagcctggct 4800  
 acagcaatac gatctagggc ccgtttccgg gagaagattc tacaggactg gagatcttgt 4860  
 tcagcagaag ttggacggct ctttcattta cattggtaga cgggataccc aagtcaagat 4920  
 tcatgggcaa cgtgttgaga ttggagaaat tgagttctgg gtgaagaaca aactcccaga 4980

tgtacgtgaa gttgtggcag gcctgtttta acctatttac gaagaggatg agccccctct 5040  
 ggctgttgcg atggaagtgc catcaagctc tggtgaatcg tccggcttgc tatcactgtc 5100  
 cgacgaactt cgcgaagcat ttggcgaact ccgccgcaac ctccctactg ttgtaccttc 5160  
 gtacatggtc ccccaactat acctgccatt cgccaaacta ccacttacag attccggcaa 5220  
 actcaatcgt cgagcaacgt gggaaatgat tcacagttgc gggtcatggc cgcagtatct 5280  
 cctgggtggat gatattaagg cagagcccgc tactgtcacc gaacgccttt tgcaaagtct 5340  
 atgggcgacg gtcctcaagg ttctgcctc ttccataggc gcaaagacg actttttccg 5400  
 ctctgggtga gactctatct cggtatgcg acttggtgac agcgcccggtg aggacgctca 5460  
 tatttcgttg aaggtggcgg atgtcttccg tcaccaata ctatccgaca tggccacact 5520  
 gatagatcga aaaacaactg tgacaaagcc agcatattgc ccgttctcta caatgactga 5580  
 tgattatgcc atccgcgact ccataagcc tctcctctca gtaccagcg agataattga 5640  
 cgttgcgctt accacggacc tccagtctct ttcgattgcc acatcggtgc gaccctctcg 5700  
 tgacctaatg gcgtacgtta gtattgatgg aattggcagc cctaattttg cccgatggag 5760  
 agcgtcttgc ttggaggtag tcaagaagca cgatatacct cgaacggctt atgtcgtgta 5820  
 caaaaatcaa ctccctcagg ttgttcttcg agattacgcc cctgctgtaa cccactatca 5880  
 gacagatcag tctatcgaag aatgcaccaa agagttcatc gcgcatgaca tgcacgacc 5940  
 accccaactg gggttac 5956

<210> 5053  
 <211> 7113  
 <212> DNA  
 <213> *Aspergillus nidulans*  
 <223> unsure at all n locations  
 <400> 5053

tacggacgac gactagcccc agattctaaa gccaggagaa gaggacgaag aggatgaaga 60  
 gtcagactcc caagccctat tcgtcaaaca gccagcctcc aaatcccgcg aagcaactac 120  
 gaaaagcaca acgcagcgct cgcgccaaac aaagcgtacc gcaccgtccc ccgtccatc 180  
 gtccaacacc gtcagtcaaa ccactacaac cgcacgtcgc agaagagaag gcaagcaaac 240  
 acagctaacg ttggactttg ttggttcgca gtcgagtcag catgctaggg ggtcagtgac 300

gagtagcaat acgaggtcca tgagaccgaa tcggaccacg aggggaagtaa gcgttcttag 360  
tgaagacatt gatgatagt acgggtttga gccgatgccc agtagtaacc ggcgaggag 420  
gtagggttgt gtacttttca cttatttgtt gatgtgcgaa ggtatgtgcg tgtgaagctg 480  
caatcataat accccctca cagtgaata tatcaagtat gtcatttctt acctcggtcg 540  
accaatctct atcaatgaag ggtccaagga cgagctactg ctagaagaca atatatgcca 600  
agatcacttt gtagaccata atatgaatga ttgatgacct ccacctaccc aattaacatg 660  
gcttcgtcag taaatacatg ctaatattac ctaaatecta cctatcttcc tacacaccta 720  
ttacctgctc gcgtctccgc ggtttacgac tagaaaccag agcatagccc ataccatcta 780  
cttaaggagc caggaagtag actacaaaga gcaaagagcc tcttgaactt tagcctcccc 840  
aaaatcccta aaaagagtta cactagacta aaccccgtaa aggaaaagca ctctagtgca 900  
cagcccattt gtcattcaca cctccccctg ttcaaaaacc tcacaggaag atccaccac 960  
ctagccctaa gatactccgc aacgttcttc cccaaaaagt ccaccgttgt cgtactcgag 1020  
accccgcat ccaatagatt gcggaagaga aagtgcactg cgcgagatt ttccagctga 1080  
aagcgctcaa tggacaaatt tcggctggg tccggttttg cgaactcgtc gccgaggaga 1140  
tcgacgatgt ttctgaggga gagcagccg cagagccacg tgtattcgtc gctgtgccgc 1200  
accagaaac cgcaatttgc atcgggccct ttgtcgctg agcgggctg gacaaggcag 1260  
ccgagtgggc cgcgatggg ggggccaaat gcctcatttt ttacaggttg acgggcttga 1320  
ccgctgtcaa caccgataac gggtagagg aggcgggaca aagaaagggg cgggatggat 1380  
ctggctgttg gggttatgga ttgcctggg tggcggtccg ggtaggctct tgtttcaggc 1440  
ggaggcggga tggtaggac cttgtcttct ttgaaggga ggtggacgcg gtgctcaatg 1500  
tcctcttgag ggaggagtgt gacgtagtac tcaaagatgg gttttgggaa gccctgccgg 1560  
agatctaggt ggaagggtgc gcctgggtag ccctgcatga tgttgcgtg gatgtgccgg 1620  
aggaaggcat tgggggtat gtctcggca ttgcgtgctt gtgctatgac ccggaagggtg 1680  
acggtggcgc tgtcttggtt ttctgggttg tcaggagagg tgccgagggt ggagaattta 1740  
agggatgtgt aattggagct gtagggtagc aagaggcgtc taatttgggc ttctagcatg 1800  
cgggctttgg cgtcgatgtc aagaccaacg aggaaccagg atgcctctgc ttggaagcct 1860  
ccgcgagcag tgatgccgac ttgggtggtt ggaggaggtg gagcggagcg gacgccgtgg 1920

agggtcacgc ggttggtgcc gatttggtcg aagcggatat ctgttaggat agctgtaacg 1980  
 tcggaattga aataccatgg gccctgaatc tcgtataaga gctgagatgt gcagggtgcc 2040  
 accgtaacag cgcctccggt ggcatatgac tgcatagtaa tgacaacctt tccttctgct 2100  
 gatattctcg caataggata gccaatgttc gaccagccgt ccttgccaat gtgctctaga 2160  
 tccttgaaac ccgtgaaatt gccccacaa acatagttagc tgcattcaat gagatggccg 2220  
 gcaacgaagg catttgcgag ctgatcaagg tcgtgtctct gccatttggt ccaccaataa 2280  
 gccgctcaa taaccggaga tgcatacagac actcgccac agagcacgat gtcggctcct 2340  
 tcagcaaggg cagctcgat tcccaaact ccaaggtagc attgcgcaaa gatgggctcg 2400  
 aatgaccagt ctgacagcac ttcgttggtg tagatattct tgaaggacga ctttccggat 2460  
 gccagtgtc tttttattgt ggataggact tcgtcaccgg acaccaagc cacctaacac 2520  
 cagattagag ttagatacaa aagaacagga gacttcgcca accttagat ccagcccttt 2580  
 ggcacgaatc atatcagtta ccacctcgta gagccctgg gtgtccgcat taccgcatt 2640  
 aaccgccagc ttgataccgt gctttgccag atcttccaag gccggctgca gcgctaaaag 2700  
 gaaggatggt tcgtaccctg gcaagttatc agagccacct cctgatgcat ctaacttgcc 2760  
 ggtagctttg tccaggtcga ctcggcgtcc agccgcgact accatattgg cttcactcat 2820  
 gaaatcggcg attataacgt ccacagggtc tagggggtag ttgctggcaa attctgcaat 2880  
 agcatggcga cggctctgat cgagccgga cgcacctgga aacaattatt aaacttggat 2940  
 tgttttagcta gacgattgaa atacctgca ttcgaaccgg gcgagagctc atgggtgatga 3000  
 taggtatcta ggacgggctt gcaatggcag gtttctgaga tagaatggtc ggccccgtaa 3060  
 tcgtagaatt gctgtgaaca taaacacggt ccatgctcaa taaagagagg cgcaaggacg 3120  
 atctggaatg attaaagaaa cactggatgg ttgtcagaat gatgaagcgc ctcggtctc 3180  
 ggtgtgagag caatgcgggg tcgaaagtcg ttctcaagga cggaagaatc atggctgaag 3240  
 ggcctagtgg atagaagctc tagacaaatc gatttttgag aggaacactg ggacgctcat 3300  
 aaagctcgta aatgatagag agtcagaatg ctaatgggtc gaataaaaaac taacatatcc 3360  
 agccactgg agaatagcca ttgcaacaaa tagcaacaga gcagatgttt tcaccaattc 3420  
 aatctcatcc cgataatagc gagtccaatt gctcaactta gccagatgca cactctggcc 3480  
 cttgtcctgc aacgctgttc gcaggctagg cagcccatcc aaactgtggc tgttccattc 3540

tttctgatag gcacgcaatt catcaccttc caccttcttt cttgcccagc tgcccaaagt 3600  
 atctcgatct ttgaagtacg gctttggctt gtttgtttcc tcatcgaaag ctaatgatag 3660  
 ctggggaaca ccatatccac atgaggtttg tacctgtttt gaatcccggg gttagtggtc 3720  
 tctcatctct aaaaatggac tcaagtgaaa aacaaccttg aaaacgtcca atcgaataat 3780  
 ggctcgcgct cccaacagcg tcttccctcc catacgtca agatatggcc caaagtcaga 3840  
 atcgctccat tcaatcacag agccagtaca gaagaagcgc aaaatgcggg gagctgcac 3900  
 gaaagagcag aagaggatgg tgattcggcc attttcgagg acgtgactaa tggctctact 3960  
 accagagccc gtggcatcca cgtatgccgc ctggttcggg cccagtatgg caaatgatgc 4020  
 gtctggtaga cctttgggtg agatgttgat atggcggcca cggagaggag cagatgccgt 4080  
 gaaaaacacc ttctggttca aggcccagtc gcgaagttcc ggagagatcg atgggtagaa 4140  
 tttgggcatt ctgaatgctt tgggagaata gggaagaatg aaaacataag atgaggtgcg 4200  
 acggcagtta cctcgatatca cagcaaaagc ggaggcggtc tccgactccg gtgagatgag 4260  
 ttgagtctag gaaacgggtc gcagggtgatt tcatgagtca ccaagccacc caagtctaaa 4320  
 gccatgtcgc tatacaatat catagagaaa aaaagtcac cgtatatac tccccaggc 4380  
 atattcccaa ggacacccga gagcccaggc aatggtcaac atagatggac ccgtcatacg 4440  
 ccatacgcat gaccctggaa ccatcttgca tacttcttct tgggacatcg tcttggggca 4500  
 gtacaagtgg gaaggggtgc tctgtagggt cggcctatgt cgggacgtcc ctgaagtctg 4560  
 ttatgcagcc gaataatatg aatcccatca acattgtaga actgtccgca tggtttgagg 4620  
 ttccgcgatt catccgcagc ggggtttgag cttatcgacg tcttgtaact cttgcttacc 4680  
 cttagagaag actccaaccg caccaaggcc aaagttaaaa gggattatcc ggggataagg 4740  
 aaactangcc tcgtgggggt gagggggagt cagcaatggt tagtaatccg tgtggggcaa 4800  
 ttgagaaaac aggaccacac aagacaatgt gcaatgaaac cttggtggta caccagcata 4860  
 gctaagtatc cgcgggcagc gaacattccg tacagattct cgagacgaac cgataccgcg 4920  
 gatccatttt tcagcatgtc gaccctaact gcaaatacaa gtgtacgaag gacggcgtat 4980  
 agtaacgaaa ggactccgag ccaagcaacc gagaatgacg tctcagactc tgcgagttag 5040  
 gcgggctcca atcaggaac ttctgcatgg tcatcaaccc cgcagatct tctcatcacg 5100  
 cctcttggtt cgtaattttc atttttgcat tacggcctcg gttatcatcg caggctccac 5160

cacatagtct caagataggt ccagaatcag tccgctctac ggggggtaaa tcgtaaattg 5220  
caattcgcac tacggtctgg gttatcgatc gcggggatcc tcaactttgt ttcagaacca 5280  
gggtgctgta ggttgtagat cgtaagtttc atcctgcatt acccgctcgc gttattatcg 5340  
cgagctcttc aacgtgtttt cagaatcacc taggctgtgg aggcagtggg caccgcggcg 5400  
aaggggacgg aatgcagttc acctggactg gctcttgaag accagtgggg cacttcggcg 5460  
ggttgctagc ttgctacatg taatttccat gggtaacagc tatectcaac aagagcggct 5520  
ccgcttgacc tggtcccttc ctttcccttc ttttgctgcg accactggct cagtgcctacc 5580  
aaagccagag cgggtattatt aaagctccct cgtcctccca ccgagccagc atttctccct 5640  
actccaactc tctctccca agatacccat atttcccgct caccatgtct gatttgttca 5700  
ccaccatcga gactccggtc atcaaatatg agcagcctct cggcctgtat gacgttttct 5760  
cgcctcctga ttttttttgt gttgtgttta ttaacgatca ttgggttgta ggttcacaa 5820  
caacgagttc gtgaagggcg ttgagggcaa gaccttcag gtcacaaacc cctccaacga 5880  
gaaggatcacc acctccgtcc acgaagccac cgagaaggat gttgatgtcg ccgtcgtgc 5940  
tgcccggtgt gcctttgagg ggccatggcg ccaggtcacc ccctctgagc gtggcatttt 6000  
gatcaacaag ctggcggatc tgatggagcg tgatatcgac accctcgccg ctatcgagtc 6060  
tctcgacaac ggcaaggctt tcaccatggc caaggatgat cttgccaaact ccattgggtg 6120  
cttgcgatac tacgctgggt gggcggacaa gattcacggt cagaccattg acaccaaccc 6180  
cgagactctt acctacaccc gccacgagcc cgttgggtgt tgcggtcaga tcatcccctg 6240  
gaacttcccc cttctgatgt ggtcctggaa gattggaccc gctgttgccg ctggtaaacac 6300  
tggtgtcttc aagaccgccg agcagacccc tctctccgcc ctttacgctg ctaagctgat 6360  
caaggaggct ggattccccg ctggtgtgat caacgtcacc tctggctttg gccgtaccgc 6420  
tggtgctgcc atctccagcc acatggacat tgacaagggt gccttcaact gctctactct 6480  
tggtggacgt accatcctgc aggccgtgc taagagcaac ctgaagaagg tcaactctga 6540  
gctcgggtggc aagtctccca acatcgtctt tgatgatgct gacattgaca acgccatttc 6600  
ctgggccaac tttggtatct tcttcaacca cggccagtgc tgctgtgctg gatcccgtat 6660  
cctgggtccag gagggcatct acgacaagtt cgtcgcgccg ttcaaggagc gtgccagaa 6720  
gaacaaggtc ggaaaccctc tcgagcagga caccttccag ggtccccagg tttcccagct 6780